The International Best for Modelling and Reference

SCALE AIRCRAFT MODELLING

February 2016 • £4.50
Volume 37 • Issue 12
www.scaleaircraftmodelling.com

COLOUR CONUNDRUM
SWIFT SQUADRONS PART ONE

SOME CONSTELLATION

Plus Model's EC-121 Warning Star

- **Silver Service**
  Eduard's MiG-15s in Metal Finish
- **First and Last Meteors**
  1/72 Double Build
- **Zeppelin Rammers**
  Brengun's Counterfactual
- **RIAT Inspiration 2015 Part Three**
  Fast and Furious

Rivet Encounter
Revell's Brand New AEW.2
1/72 Test Shot Build

Airborne Infrastructure
GAL-58 Hamilcar-X
Planet Models 1/72 Resin

A Silk Purse from a Sea Pig's Ear
Building the F-111B TFX
Tactical Fighter Conversion

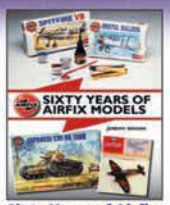
02
9 770956 142109
Guideline Publications

Aviation&MilitaryBookCentre

Military & Civil Aviation – Military Weapons & Equipment – Naval Vessels

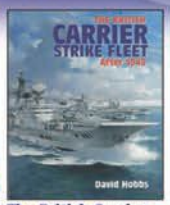
www.aviationbookcentre.com

Royal Navy Search and Rescue A Centenary Celebration *D Morris*
The story of Royal Navy search and rescue from the first mission by Sir Richard Bell-Davies VC to the present day.
SB 128pp **£17.99**

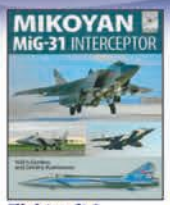


Sixty Years of Airfix Models *J Brook*
The story of the best known and most important manufacturer of plastic model kits in the UK, Airfix, a major leader of the industry since 1955.
HB 176pp **£25.00**

Models and Figures 11 The Story of Revell Volume 1 1950-1986 *J Carbonel*
Looks back at the origins of the Revell company starting with its first kit in 1951 a clunker Maxwell 1:16.
SB 90pp **£17.50**

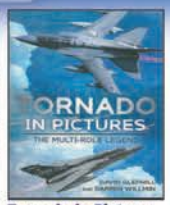


The British Carrier Strike Fleet, After 1945 *D Hobbs*
Charts the post-war fortunes of the British Carrier Strike Fleet leading to its decline in the face of diminishing resources.
HB 640pp **£35.00**



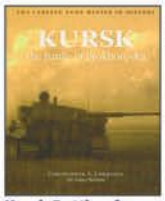
Flightcraft 8 Mikoyan MiG-31 Interceptor *Y Gordon*
Describes the MiG-31's developmental history, including upgrade programmes, with a full survey of the kits available.
SB 64pp **£14.99**

Spotlight On Supermarine Spitfire V *R Grudzien*
Detailed colour profiles of the Spitfire Mk.V including the markings and camouflage patterns from different theatres.
HB 48pp **£19.00**



Tornado in Pictures. The Multi-Role Legend *D Gledhill*
The author explores the range of Tornado capabilities and, having flown the Tornado F2 and F3, offers a unique insight.
SB 96pp **£14.99**

Bombing Europe. The Illustrated Exploits of the Fifteen Air Force *K Mahoney*
The story of the bombing of Europe under the Axis powers and tells the story of the brave airmen who bombed the majority of Europe. 200 B&W Photos.
HB 240pp **£21.50**

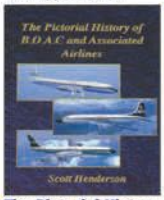


Kursk Battle of Prokhorovka *C Lawrence*
The Battle of Prokhorovka is the first definitive account of the largest tank battle in history. A unique tome which draws upon both German and Russian archive records and is built from the actual unit records from both sides. 289 photos plus fold-out maps.
HB 1650pp **£160.00**

Britain and the Wars in Vietnam: The Supply of Troops, Arms and Intelligence, 1945-1975 *G Prenderghast*
This book discusses the conduct of the wars in Vietnam and the political ramifications of UK involvement, and describes Britain's actual role.
SB 328pp **£45.50**

P-51 Mustang Seventy Five Years of America's Most Famous Warbird *C Graff*
The entire story of the P-51 which starts with the fact that the Mustang was built in less than 120 days! The book is lavishly illustrated with historical and current photos.
HB 224pp **£25.00**

The Royal Naval Air Service in the First World War : Aircraft and Events as Recorded in Official Documents *P Jarrett*
This book combines five original documents relating to the work of Britain's Royal Naval Air Service (RNAS) during WWI.
450 B&W photos.
HB 280pp **£30.00**



The Pictorial History of BOAC and Associated Airlines *S Henderson*
The illustrated history of the B.O.A.C. and associated airlines, covering the fascinating story of the UK's long-range carrier from its formation in 1939 until the creation of British Airways in 1974.
HB 180pp **£40.00**

Hawker Hurricane Survivors A Complete Catalogue of Every Existing Hurricane Worldwide *G Riley*
This is the story of surviving Hurricanes based on 30 years of research and delving into the archives to amass new information. Colour throughout.
HB 224pp **£25.00**

First In the Airborne Pathfinders: A History of the 21st Independent Parachute Company, 1942-1946 *R Kent*
The author contacted survivors of his company, the 21st Independent Parachute Company, to provide the first comprehensive history of the unit.
HB 218pp **£19.99**

Paint Locker Magic. A History of Naval Aviation Special Markings and Artwork *J Meehan*
A complete history of aircraft special markings and nose art of the US Navy, Marine Corps and Coast Guard. 100 black and white photos and 278 colour illustrations.
HB 240pp **£30.00**

Goodyear GA-28A/B Convoy Fighter. The Naval VTOL Turboprop Tailsitter Project of 1950 *J Zichek*
Provides a detailed overview of the GA-28A/B. With speculative colour profiles and black and white illustrations.
SB 36pp **£14.99**

The Eagle has Landed Armour & Aircraft Dioramas. *A Azkue*
Colour photo album containing 10 step by step dioramas from the base to the finishing touches. Contains tricks of the trade. With hundreds of colour photos.
SB 288pp **£35.99**

Airframe & Miniatures No.2 The Hawker Typhoon including the Hawker Tornado A Complete Guide to the RAF's Classic Ground-Attack Fighter 2ND EDITION *R Franks*
Updated and Expanded.
SB 128pp **£18.95**

Planes and Pilots 22 Douglas A4 Skyhawk 1955-2015 *G Paloque*
Lavishly illustrated, this book of the Douglas A-4 and its use around the world, contains a plethora of colour profiles showing its various colours and markings.
SB 120pp **£17.99**

Aero Magazine 12 Hawker Hurricane Mk I 2 dil *M Snajdr*
CZECH TEXT. Second part of this lavishly illustrated magazine focusing on the development, service, technical description and camouflage schemes of the Hurricane Mark I.
SB 34pp **£7.99**

Martin Model 262 Convoy Fighter The Naval VTOL Turboprop Project of 1950 *J Zichek*
A detailed overview of the Model 262 an unconventional turboprop VTOL aircraft proposal submitted to the US Navy.
SB 48pp **£14.99**

Windsock Centenary Datafile 170 2F.1 Ship's Camel *R Rimell*
Includes a revised service history of the Ship's Camel (originally published as datafile no.6) and includes profiles, cutaway drawings and an updated list of 1:32 kits.
SB 32pp **£11.75**

Under the Maple Leaf The Remarkable Story of Four Canadian Volunteers who Flew with Bomber Command During the Second World War *K Cothliff*
The Canadian contribution to the WWII bombing campaign.
HB 194pp **£19.95**

Aero Journal 50 Les Armes de bord de la Luftwaffe
FRENCH TEXT. Well illustrated with archive photos, line drawings and colour profiles.
SB 82pp **£6.50**

Airframe Extra No.4 Battle of Taranto Judgement Day *R Franks*
The history and aircraft involved in the Battle of Taranto. Photos and profiles.
SB 90pp **£7.95**

Hawker P.1103 & P.1121 Camm's Last Fighter Projects *B Hygate*
Lavishly illustrated book which examines Sir Sidney Camm's work.
SB 66pp **£12.99**

Handley Page Herald *M Falcus*
This book looks back at the development and life of the Herald and the people who flew it. Colour photos.
SB 93pp **£12.99**

Camouflage & Decals 3 Finnish Fighters of WWII *K Stenmann*
Illustrates the markings of six Finnish WWII fighters, includes decals.
SB 16pp **£15.00**

Aero Magazine 13 Lavockin La-5/La-7 v ceskoslovenskem letectvu *M Irra*
CZECH TEXT. Lavishly illustrated magazine on the La-5/La-7.
SB 34pp **£7.99**

Windsock World War Centenary 31/4
This issue includes Airfix BE2C and Eindecker Preview features; Helmets and hats and headgear.
SB 32pp **£7.75**

Osprey Combat Aircraft 113 F-51 Mustang Units of the Korean War
A comprehensive account of the aircraft and their crews.
SB 96pp **£13.99**

order via our secure website: **www.aviationbookcentre.com**

T: **01530 231407** (+44 1530 231407) E: **sales@aviationbookcentre.com**

Post: **Aviation & Military Book Centre, PO Box 10159, Coalville, Leics LE67 1WB**

Delivery charges UK: Order value below £20 = £3.50,£20+above = £5.50
Overseas: Standard Airmail please add 15% of order value. Minimum £5.50.
Priority Airmail please add 20% of order value. Minimum £7.50.

We accept: Mastercard, Visa, Visa Delta, Maestro (Switch), Solo, Postal Orders, £ Sterling Cheque drawn on a UK Bank. Cheques made payable to Aviation Book Centre Ltd.

LUCKY MODEL.COM

KINETIC Model Kits

The Su-33 Flanker-D is an all-weather carrier-based twin-engine air superiority fighter designed by Sukhoi. It is a derivative of the Su-27 and was initially known as the Su-27K. First used in operations in 1995 aboard the carrier Admiral Kuznetsov, the fighter officially entered service in 1998. Following the break-up of the Soviet Union and the subsequent downsizing of the Russian Navy, only 24 aircraft were produced.

1:48 SU-33 FLANKER D

1/48 SCALE **Su-33 Flanker D** K48062

Model Features:

- Super Detail cockpit
- Super Detail engine nozzle
- Folding Wings option
- One-piece slide moulding missiles: R-73, R-27E, R-27EM
- Super Detail landing gear bay

Photo Etched part is included.

Decal printed by cartograf

Decal design by CROSSDELTA

279th Fighter Aviation Regiment, Russian Naval Aviation, on board Admiral Kuznetsov

Length : 457mm **Wingspan :** 306mm **Parts :** 320+

www.facebook.com/kineticmodel

VERIFIED by VISA MasterCard PayPal

Huge Selections of Asian Models

Luckymodel.com is offering a wide range of the finest scale models and accessories worldwide. We are located in Hong Kong – the hub of Asia Pacific, where the finest models come from. Get your models direct from the source.

Order online: www.luckymodel.com info@luckymodel.com

Rivet Encounter

Avro Shackleton AEW.2
Test Shot Build
By **Andy McCabe**

Kit No: 04920
Scale: 1/72
Type: Injection Moulded Plastic
Manufacturer: Revell GmbH
www.revell.de/en

The Shackleton was a development of the Avro Lincoln Bomber, itself a development of the mighty Lancaster, and if that was not enough it was designed by Roy Chadwick so it surely could not have had a better lineage. The Avro 696, as it was before it became the Shackleton, also shared parts with the Avro Tudor which itself was a development of the Lancaster and was devised in answer to a postwar requirement for a long range Maritime Patrol Aircraft after World War II, during which various aircraft had been modified to suit the role including Lancasters and Consolidated B-24 Liberators.

The prototype Shackleton GR.1 flew for the first time on the 9th March 1949 from Avro's factory at Woodford, Cheshire in the UK. On 30th March 1951 120 Squadron RAF received its first Shackleton and by the close of 1952 seven RAF Squadrons were operating the type.

The AEW.2 fleet consisted of twelve MR.2s converted at Woodford and Bitteswell Airfields in the UK, as Airborne Early Warning Aircraft in 1971 featuring an AN/APS-20 radar scanner as already in use on the Fairey Gannet. The first AEW.2 flew on 30th September 1971 entering service with 8 Squadron on 1st January 1972.

The Shackleton was powered by four Rolls-Royce Griffon 57 liquid cooled V12 engines, each with two contra rotating four bladed propellers and typically had a crew of ten and a range of 2,250 miles. It was finally retired in 1991 after forty years service and a total of 185 were built.

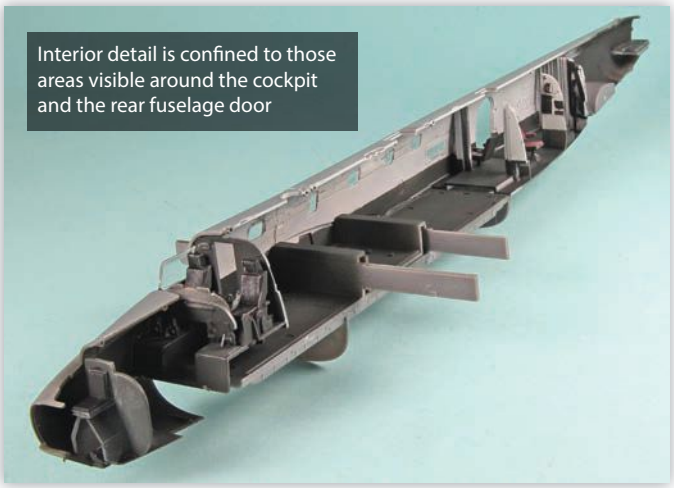
The Revell kit of the Shackleton AEW.2 is a completely new 1/72 tooling and features nine grey and two clear sprues of injection moulded plastic and one decal sheet with options for two aircraft, WL756 and WL795. The sprues received are test shot sprues so the ones that hit the shelves may differ from these. The parts have exquisite finely engraved panel lines and surface detailing and lovely sharp moulding throughout.

The instructions are in full colour with flags as well as paint references at each build stage to denote the colour to be used, which is a nice idea as you don't then have to keep flicking back to the reference chart to see what colour A, B, C, D etc is. The painting and decalling instructions are also in full colour. These new instructions being supplied by Revell are much better than their previous black and white ones, although paint call outs are still only provided for Revell's own paints.

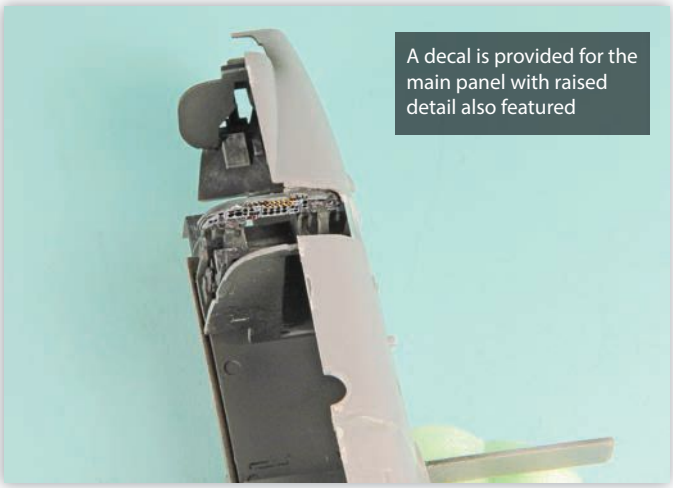
The decal sheet is superbly printed as is customary now from Revell. There was a lot of interest at Scale ModelWorld in Telford this year over this release and I consider myself honoured to be one of the first to receive sprues of this new kit.

Construction

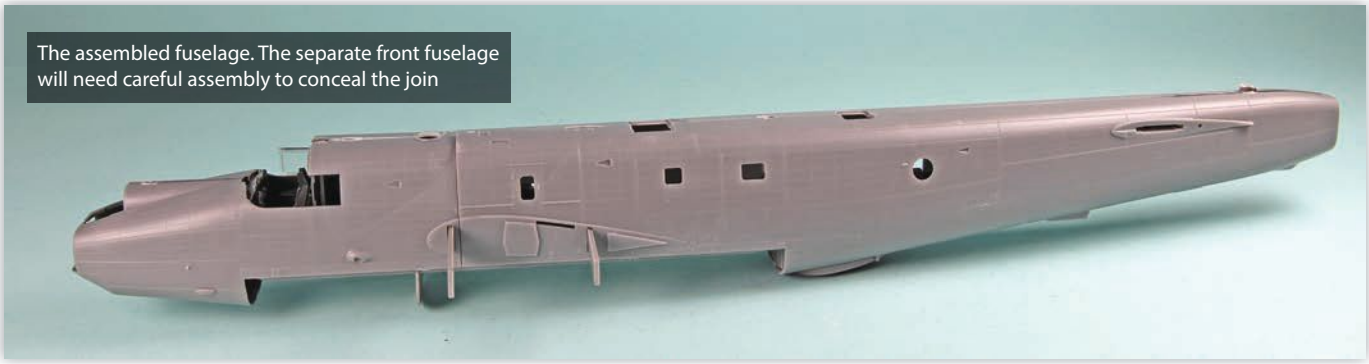
The interior parts of the cockpit and lower parts of the cabin were sprayed Tire Black



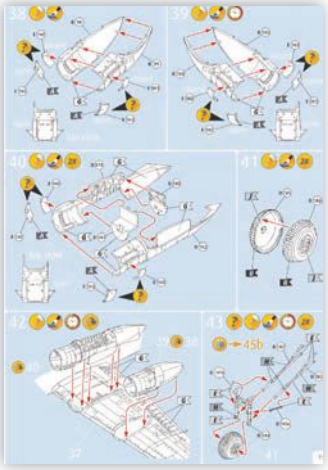
Interior detail is confined to those areas visible around the cockpit and the rear fuselage door



A decal is provided for the main panel with raised detail also featured

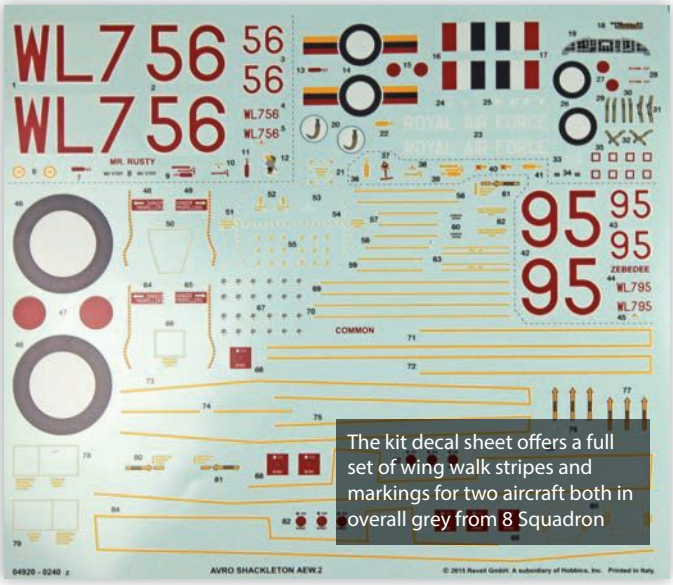


The assembled fuselage. The separate front fuselage will need careful assembly to conceal the join

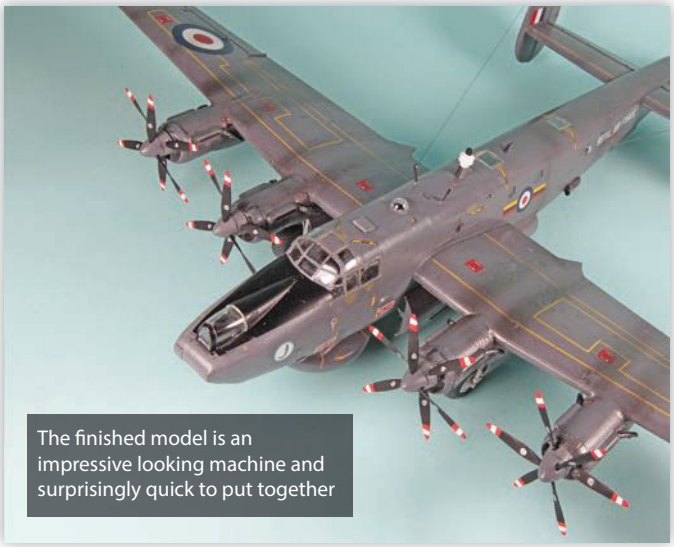


Revell's new style instructions are a welcome departure from what has gone before

Painting and decalling diagrams are provided in full colour



The kit decal sheet offers a full set of wing walk stripes and markings for two aircraft both in overall grey from 8 Squadron



The finished model is an impressive looking machine and surprisingly quick to put together

A look into the weapons bay. The flaps can be posed open as well

and the upper part of the cabin with light grey. The main instrument panel has both raised detail and decals and looks quite good when finished. Looking at photos of the real thing suggests the interior was predominantly black so this was applied throughout and then dry brushed with grey to highlight the details. The aft cabin has detailing around the door comprising two seats and a couple of bulkheads but otherwise there is very little interior detail, which is fine as it cannot be seen. The bomb bay was now assembled and the wing spar part glued to it. The fuselage parts are split into forward and aft sections, presumably to allow Revell to tool other versions of the Shack.

The interior was now assembled into the fuselage halves, or quarters to be strictly accurate, and then the clear parts were fitted into their respective openings after which the sides were joined together. The fit of the parts is exact and very little filler was needed on the fuselage joints.

The clear canopies were now masked and glued into position and all of the cabin windows masked at the same time. The radome halves were now glued together and fitted to the forward section of the bomb bay.

The wings were now assembled. These consist of straightforward top and bottom halves but there are poseable flaps and slats. The wings are a very tight fit to the fuselage.

The tail plane was now assembled and this also has moveable surfaces, as do the two fins which have moveable rudders.

The landing gear bays have internal bracing/ribs and the engine fronts have engraved radiator panels. The fit is again very impressive and the parts have pins and holes as well as lips along the edges to ensure the exact alignment of the parts.

The assembled nacelles were then glued to the wings and a coat of primer was now applied.

The bomb bay and landing gear bays were sprayed matt white and then masked off ready for the main paint to be applied. An overall coat of Dark Sea Grey was now sprayed on, and this sprays exceptionally well without needing thinning and dries relatively quickly, and the decals added without any problems arising during their application.

Final assembly now commenced including painting and assembling the undercarriage, the props and the bomb bay doors. Finally the many small aerials were fitted to the fuselage and the model was finished.

Two colour options are supplied:

1. 716 Shackleton AEW.2, WL 756, *Mr Rusty*, 8 Squadron RAF, Lossiemouth Scotland, late 1973
2. 716 Shackleton AEW.2, WL 795, *Zebedee*, 8 Squadron RAF, Lossiemouth Scotland, June 1981

Conclusion

This is a mightily impressive new model from Revell of the Avro Shackleton, superbly tooled with a very high level of external detail and a nicely detailed interior that while limited is more than sufficient for what can be seen through the transparencies.

This is the first Shackleton I can remember making and I can honestly say it was worth waiting for as the fit of the parts is excellent throughout and has obviously been designed by model makers for model makers as the extra alignment lips on some of the parts and the location guides on others, such as inside the fuselage, leaves the modeller in no doubt as to which part goes where. A testament to this is the fact that this test shot was assembled without any instructions as they only arrived in time for the decals to be applied correctly.

I am in no doubt that this will prove to be a very popular kit as the Shackleton was and still is a very fondly remembered aircraft with a very large following amongst aviation modellers. Let's now wait and see what aftermarket parts become available for this kit.

A very impressive model of the aircraft by Revell and a joy to build and review. If you want a 1/72 Shackleton then I cannot recommend this highly enough. I cannot see how the production sprues could be better than the test shot, but if they are then it will be a truly superb piece of tooling.

THIS MONTH'S FEATURES:

4. **Rivet Encounter**
Avro Shackleton AEW.2 Test Shot Build
By **Andy McCabe**

18. **Zeppelin Rammer**
Brengun's Counterfactual
By **Karl Robinson**

22. **A Silk Purse from a Sea Pig's Ear**
Building the F-111B
By **Tony Grand**

30. **First and Last…**
Modelling the Meteor in Israeli Service
By **Raymond Ball**

34. **Some Constellation**
Plus Model's EC-121 Warning Star
By **Keith Peckover**

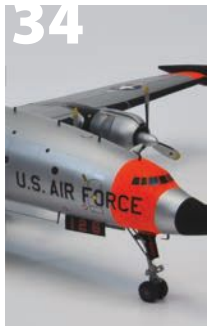
39. **Aircraft in Profile**
Avro Shackleton
By **Richard Mason**
With artwork and plans by **Mark Rolfe**

51. **Colour Conundrum**
Swift Squadrons Part One
By **Paul Lucas**
With artwork by **Mark Rolfe**

56. **Airborne Infrastructure**
Planet Models 1/72 GAL-58 Hamilcar-X
By **Andy McCabe**

60. **RIAT Inspiration**
Part Three – Fast and Furious
By **Mike Verier**

62. **Silver Service**
Eduard's MiG-15s in Metal Finish
By **Colin 'Flying' Pickett**



Trading Spaces

This month we are pleased to present some bigger builds than usual, Keith Peckover's impressive EC-121 and Andy McCabe's Shackleton test shot having both recommended themselves at the same time. Given the usual single engined fare that predominates in the modelling press it seemed too good to be true, and as the Shackleton is particularly newsworthy at the moment it seemed only right to move the *Aircraft in Profile* feature forward a month to complement Andy's build. Revell's kit is a remarkable tooling and we are very grateful for the opportunity to run a build early. Keith's EC-121 is a much older tooling, being the Heller kit upgraded by Plus Model. The article is a nice demonstration of what the aftermarket can achieve these days, as well as being a superb showcase of the modeller's skills and attention to detail both in matters of research and in the actual construction.

We have another fascinating conversion from Mr Tony Grand as well in the rather elegant shape of the F-111B, and while the subject is almost mainstream by his usual standards it has nonetheless allowed its author ample opportunities to stray from the beaten track as far as the modelling is concerned. My own experiences this month have been fairly out of the box by comparison, although this is in itself a subjective term as Colin 'Flying' Pickett's MiG-15s can also be described thus, but there is a world of difference between these and my own modest achievements.

Readers will no doubt have noticed the lack of a gatefold in the centre of this issue as well. This has been the matter of some discussion between the production team here. I personally favoured the move as it has given me some extra space to play with, while the bean counters are pleased by the fact that we are not simply cutting off the equivalent of two pages and throwing them away each month. This does mean that larger aircraft plans will have to be featured in a smaller scale, but to be honest there were very few that fitted into the format in 1/72 in any case, certainly in plan view, so while critics are absolutely right in saying that losing the gatefold has saved us some expense I maintain that it is also an improvement as I have plans for the *Aircraft in Profile* section that would have been compromised by its retention.

More on this next month, which will be the first issue of Volume 38 and a logical point at which to be instituting changes. But don't worry, there won't be so many and they will all be for the better…

By **Gary Hatcher**
Editor

Distributed to the UK and International news trade by
Intermedia
http://www.inter-media.co.uk/
via MarketForce (UK) Limited
110 Southwark Street, London SE1 0SU
http://www.marketforce.co.uk/

STORE FINDER
Books-A-Million, Inc. presently operates over 200 stores in 18 states and the District of Columbia. To find the store nearest your location visit:
www.booksamillioninc.com/store_finder/index.html

NEWS

Open your ears; for which of you will stop
The vent of hearing when loud Rumour speaks?
I, from the orient to the drooping west,
Making the wind my post-horse, still unfold
The acts commenced on this ball of earth.
Upon my tongues continual slanders ride,
The which in every language I pronounce,
Stuffing the ears of men with false reports…

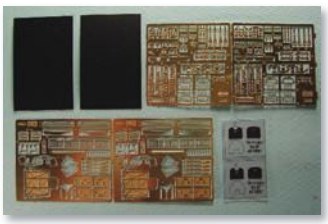
POCKETBOND

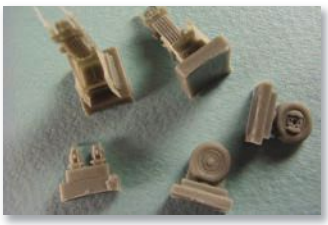
The latest kits from the Pocketbond stable notified in the recent period. We are particularly interested in that 1/48 Grumman Duck promised by Merit. Long overdue.

Trumpeter
TM01668 1/72 Chinese J-15
TM02862 1/48 J-7GB Fighter
TM03217 1/32 Ju-87D Stuka
TM02878 1/48 US T-38C Talon (NASA)
TM02894 1/48 de Havilland Hornet F.3
TM05109 1/35 Chinese Z-9WA Helicopter

Merit
MM64805 1/48 Grumman J2F-5 Duck

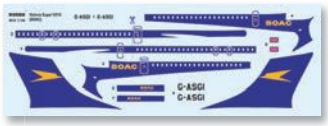
Academy
AY12529 1/72 F-4J Phantom US Navy VF-84 Jolly Rogers
AY12123 1/32 KF-16C ROKAF Fighting Falcon
AY12528 1/72 B-29A Enola Gay & Bockscar. Academy's B-29 includes cockpit and bomb bay detail. Little Boy and Fat Man bombs included.
www.pocketbond.co.uk

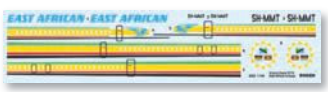




ARMA HOBBY

Arma Hobby has released an all new injection moulded kit of the TS-11 Iskra bis DF. Released separately is set #72078, a SO-3W engine set for the Iskra, consisting of six resin parts and eleven etched details on a small fret.
www.armahobby.com





RODEN

At last the two 1/144 VC10 kits are here. With its introduction in April 1964 the VC10 became an immensely popular aircraft in the BOAC fleet both with passengers and crew, being particularly praised for its comfort and low cabin noise levels. It was BOAC's most successful aircraft in terms of passenger numbers carried. The VC10 still holds the record for the fastest London to New York crossing of the Atlantic, of five hours and one minute. Other major users of the VC10 were East African Airways and the Royal Air Force, the latter only withdrawing its last VC10 from service in 2013.

East African Airways (the subject of kit #329) operated five Super VC10s along its routes from Nairobi. East African was a joint company of Kenya, Tanzania and Uganda and was the main African based airline, operating routes around the world.

The Super VC10 was ideally suited to this airline. One story is that East African named their VC10s Jambo Jets, jambo being a greeting in Swahili. This may have been in response to the Boeing 747 that was then coming into service.

313 Vickers Super VC10 Type 1151

329 Vickers Super VC10 Type 1154

MIKROMIR

MikroMir have released a Yak-23 in 1/144, a real treat for aficionados and almost but not quite the last type one might have expected to see scaled down in injection moulded plastic. Besides the Clog a Tupolev TB-1 #72008 is on the way.
Hannants/Stevens International

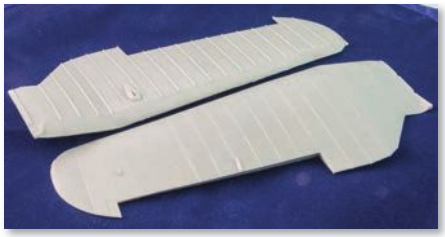
MODELEX

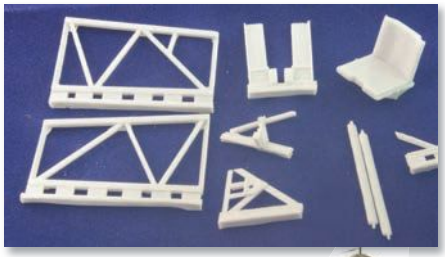
March 5th 2016 sees Aldingbourne's inaugural Modelex event hosted by Aldingbourne Modellers at Aldingbourne Community Sports Centre, Olivers Meadow, Westergate, West Sussex, PO20 3YA. Opening times are 10am - 4pm.

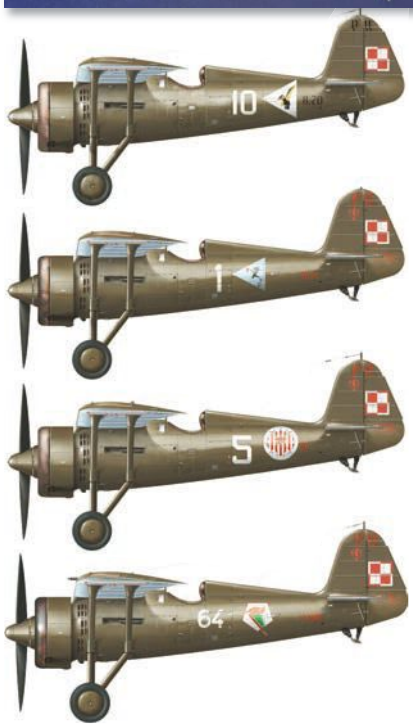
Email: aldingbournemodellers@gmail.com

Web: www.facebook.com/aldingborunemodellers

The show will feature model displays, trade stands refreshments and free parking. Prices are £2.50 per person, under 16s go free.







SILVER WINGS

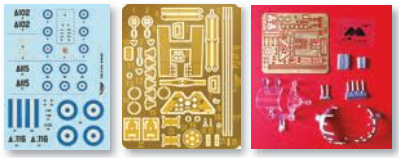
On 11th November Poland celebrated its National Independence Day and this was marked by Silver Wings with the announcement of a very special kit of an aircraft that played a major role in Polish Air Force history during World War II.

Silver Wings advise that 'deep analysis of documentation, a pursuit of perfection in each detail and struggle with getting the complex surface detail correct have eventually paid off. After many hours of conversations, planning, prototyping, modelling and fitting, our PZL P.11c in 1/32 scale is finally ready.

We are very excited that we will are able to produce this model, and hope that you are pleased with it as well. The P.11c begins the Silver Limited Edition line. The kit does not only have a fancy box art but also includes separate metal gun barrels, eighty two photo etched elements, four marking options, A4 poster, PZL logo sticker and two discs including museum photos and original manual.'

www.silverwings.pl

Hannants



MIRAGE HOBBY

#48108 1/48 PZL P.24F and G Greece 1940/1941 (Re-edition with parts from White Metal)

In late 1937 and early 1938 Greece took delivery of twelve P.24Fs armed with two cannons and twenty four P.24Gs armed with four machine guns. Both variants were powered with Gnôme-Rhône 14N 07 engines rated at 950/970hp driving a three blade propeller. Compared to earlier versions the aircraft featured an altered engine cowling and a propeller spinner. The top speed was 430km/h. The aircraft were initially in a natural metal finish and wore numbers in the range D101-D136 and were used in fighter squadrons (mira) 21, 22 and 23.

In 1940 all aircraft were rearmed with four machine guns, effectively converted to P.24G standard, and finished in a multi tone camouflage scheme. During the war against Italy and Germany from November 1940 until late April 1941 Greek pilots flying P.24s were credited with forty enemy aircraft destroyed (thirty six Italian and four German). On 2nd November 1940 Lt. Marinos Mitralexis downed an Italian bomber by ramming. This was probably the first combat ramming in mid-air during World War II. One of the last P.24s was shot down over Crete. One P.24 captured by the Italians was still in the Italian Air Force inventory in 1943.

Hannants/Stevens International

AMK MODELS

Out now from AMK is #88003 1/48 Mikoyan MiG-31 BM/BSM Foxhound.

Hannants/Dragon USA

GREAT WALL MODELS

Next boxing of the 1/48 F-15 from Great Wall is LNRL4816, F-15I IAF Ra'am 69 Squadron Hammers

Creative Models/Dragon USA

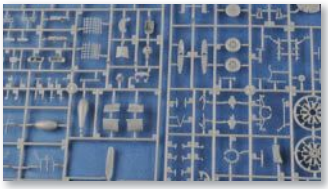
REVELL

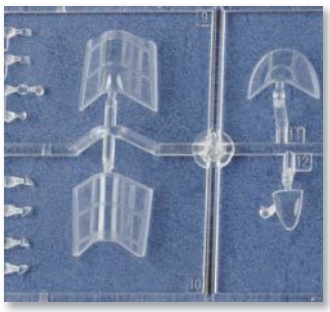
APanavia Tornado GR.4
Scale: 1/48
Kit No: #04924
Type: Injection Moulded Plastic
Manufacturer: Revell GmbH

A most welcome revised boxing of Revell's excellent 1/48 Panavia Tornado kit which will enable an RAF GR.4 aircraft to be built, and almost equally as welcome are the new A4 full colour instructions that help to make this two hundred and eighty part Level Five kit look an awful lot less complex. Colour call outs are only given in Revell's own range as usual, but it is not too hard to convert these to your favourite brand if you need. A full set of stencils are included on the decal sheet along with two options for Tornados in the all over grey scheme, the first for a 41 Squadron GR.4 from RAF Coningsby in 2011 with the white fin 41 Squadron 95th anniversary tail markings (ZA600), whilst the second is for a 617 Squadron aircraft from RAF Lossiemouth in July 2008 (ZD714/AJ-W), although there are already a good few options available on the market should these decals not appeal and no doubt this release will see more added. The kit also includes the chin mounted targeting and FLIR pods as well as a pair of those signature 2250L drop tanks, BOZ 107 and Skyshadow self defence pods and four AIM-9L Sidewinder missiles. The centreline and underside pylons are also included although you'll need to acquire your own ordinance should you wish your Tornado to be fully tooled up. Eduard's Brassin and CMK's accessory ranges should be able to cater admirably for your needs.

The kits cockpit is well appointed although the moulded on seat harnesses are a bit weak and need replacing with etch. The kit also has an option to drop the flaps and slats as standard, and along with the fixed but positionable swing wings and open air brake options this is really the best quarter scale Tornado on the market. Personally I like the idea of a current aircraft with varying shades of grey panels all over from replacement during maintenance looking for all the world like it has just returned back from a trip around the Mach loop in North Wales, however with the type seeing service over Syria there are many options to choose from.

There is a clear part missing from the sprue - the front part of the LRMTS, a crucial piece for an RAF GR.4 - due to an error at the factory, and beyond Revell's control. The missing part has already been identified and is being shipped to all UK retailers who stock the product. If someone has bought the kit, their first port of call is the place of purchase to get the missing part.

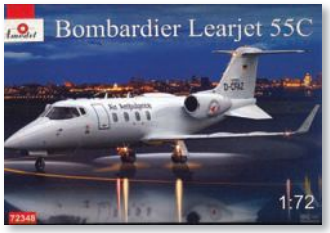




HOBBYBOSS

Having tackled a number of late variants of the Corsair HobbyBoss have now gone back to the start as it were with an early Birdcage F4U-1. Very nice it is too, and we hope to see the definitive World War II versions coming on stream soon.

Creative Models/ Squadron

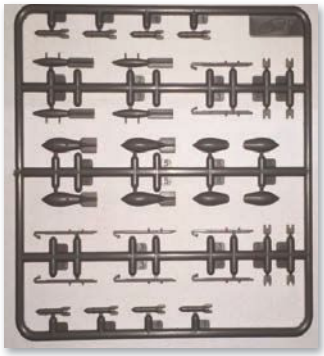


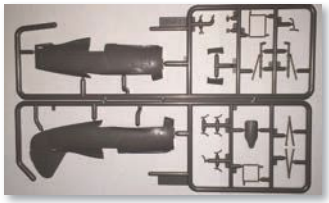
IBG

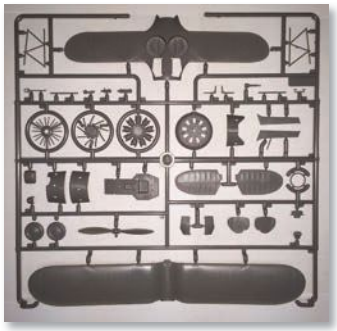
IBG's neat little RWD-8s are now available. The kit comes in two boxings, military or civilian, with decals and parts as appropriate. This does include an entirely different fuselage so the two are not as interchangeable as you might suppose. The kit is beautifully tooled and augers well fro future releases from this source.

IBG also distribute a number of brands from Eastern Europe and their website is always worth a look to see what is up and coming. A quick look confirms that new 1/72 kits from Modelsvit include the Yak-IB and the I-3U, while some very welcome new kits from Amodel include the Lear Fan 2000 and more significantly the Learjet 55C, also in 1/72.

www.ibg.com.pl



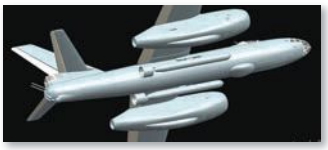




ICM

The latest release from ICM has been a 1/48 I-153 Chaika. Look out for the next version of that 1/48 Ju 88 soon as well. That is a kit that we expect to see run and run!

Hannants/Squadron



XUNTONG

Goodness! More Soviet twin engine machines from Xuntong XT Models in the shape of a Yak-28P and an IL-28T both in 1/48. UK importer is Pocketbond.

www.xtmodel.com.cn

Creative Models Limited

CREATIVE MODELS LIMITED

MONOGRAM

RVM5718
1:48 - B-29 Superfortress
RVM5536
1:48 - UH-1D Huey Gunship
RVM5535
1:32 - P-51B Mustang
RVM5269
1:48 - Stearman Aerobatic Biplane

eduard

EDB672094 - 1:72 MiG-29A Izdelye 9-12 Cockpit (Trumpeter)
EDB672093 - 1:72 MiG-29A Ejection Seat (Trumpeter)
EDB672095 - 1:72 Fw 190A Wheels Early (Eduard)
EDK1143 - Rockn' Rhino (Limited Edition)
EDK70116 - 1:72 Fw 190A-5
EDK84141 - 1:48 Spitfire Mk. XVI Bubbletop

Revell

RV03954
1:72 DHC-6 Twin Otter Swisstopo
RV03959
1:48 Spitfire Mk.II
RV04986
1:72 EC135 Air - Glaciers

We Also Stock: Hobbyboss, Meng, Trumpeter, AK Interactive, Vallejo and Shesto.

www.creativemodels.co.uk Email: info@creativemodels.co.uk
UNITS 6-10 HONEYSOME IND. EST., HONEYSOME ROAD, CHATTERIS, CAMBRIDGESHIRE. PE16 6TG
Tel: +44 (0)1354 760022 Fax: +44 (0)1354 760037

CZECH THIS • CZECH THIS •

New Releases from the Czech Republic

Planet Models

PLT266 Short SC-1 First British VTOL Aircraft

Resin kit of the first British VTOL aircraft. Includes decals for two prototypes, white metal undercarriage legs, two styles of vacform canopy and photo etched parts.

Special Hobby

SH32013 1/32 339E Buffalo Mk I reissue

This is a welcome return of the 1/32 British Buffalo kit. It comprises nine sprues of plastic parts, an injected clear canopy, a set of resin parts and an etched fret. The decal sheet provides for four eye-catching camouflage schemes from the combats over Singapore and Malaya, all with artwork or kill markings of some sort. This issue will be offered only in a limited quantity.

SH32063 1/32 Bloch MB.152C1 Early Version

The Bloch MB 152C.1 was one of four pivotal fighter aircraft types the Armée de L'Air in the defence of France in 1940. Initially production MB 152C.1s were built with a 90cm diameter cowling air intake. Later machines were slightly improved by having this reduced to 60cm, and it is the earlier type that is subject of this kit.

The plastic parts come on four sprues, the clear canopy is injected and the engine and interior parts are cast resin. Smaller parts are covered by an etched fret.

The decal sheet caters for two machines, the first of which was the personal mount of Marius Jean Paul Elzeard Ambrogi, an ace who gained fourteen kills during World War I and managed a further one in World War II. The other machine was flown by another ace, commander of the 1re *escadrille* Cne Germain Coutaud (eight victories in 1940) and also carried a unit badge.

SH48093 1/48 Heinkel He 178 V-2

The Heinkel He 178 with E. Warsitz at the controls hopped briefly above the runway for the first time on 24th August 1939 and the real first flight took place only three days later. These were the very first flights of a jet aircraft in the world. On 1st November while the test flights were still in progress the aircraft was displayed to RLM officials. Later on the aircraft received more powerful HeS 6 engines, a longer span wing and retractable undercarriage. This version is designated He 178V-2 by some sources.

The He 178 with retractable undercarriage and longer wing is the subject of this kit. It consists of two sprues with plastic parts, an injected canopy, resin and etched detail parts and a decal sheet for the prototype.

SH48157 1/48 Fairey Fulmar Mk I/II Hi-Tech version

This upgraded reissue includes five camouflage schemes designed with the assistance of renowned aviation historian and modeller Tony O'Toole. All but one depict machines from the Mediterranean with markings typical for this theatre. The non MTO machine was in fact fighting the Japanese from its Ceylon base. Although this particular machine has been portrayed many times, the photographs provided by Tony from his archives show that these attempts have almost always been incorrect. The kit includes resin and etched details as well as the five injected sprues and transparencies.

SH48169 1/48 IMAM (Romeo) Ro.43 War Colours

This latest issue of the Italian two seater reconnaissance floatplane comprises five grey and one clear sprue, a set of detailed resin parts and an etched fret. The decal sheet covers two machines, the first of them is MM27148 a machine that was catapult launched from the Italian cruiser *Eugenio di Savoia*, while the other was used aboard the battleship *Vittorio Veneto*.

SH72154 1/72 Sea Harrier FA.2 Hi-tech reissue

The last version of the British Harrier was equipped with the more efficient Blue Vixen radar and advanced AIM- 120A AMRAAMs together with highly effective offensive and defensive electronic devices. The kit includes etched and resin details and markings for three aircraft, two attractive grey machines and one in the gaudy blue 25th anniversary scheme.

SH72283 1/72 AH-1Q/S Cobra US Army&Turkey

Covers four US Army machines, two AH-1Qs and two AH-1Ss and one Turkish aircraft in three-tone camouflage.

SH72289 1/72 Mirage F.1 CE

SH72292 1/72 Nomad Mk I

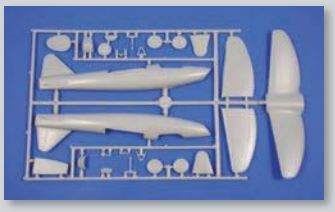
SH72294 1/72 Mirage F.1

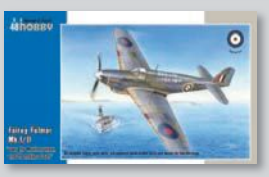
1/72 Arado Ar 96A

This new boxing includes markings for the V6 prototype.

SH72331CAC CA-3/5 Wirraway First Blood over Rabaul

www.cmkkits.com





Edited By **Jack Trent**

AZ Model

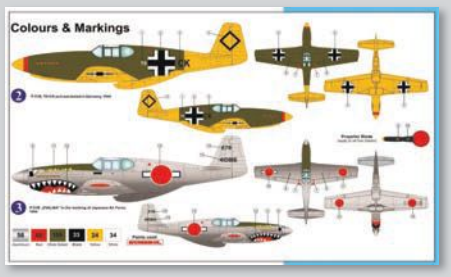
New releases from AZModel and Kovozávody Prostějov:

KP 1/72
KPM0056 Spitfire Mk.IIB
KPM0057 Spitfire Mk.VB Early Aces
KPM0058 Spitfire Mk.VB
KPM0055 Spitfire Mk.IB
KPM0050 Mig 23MF reissue

AZModel 1/72
AZCZ39 DFS Kranich 2
AZ7507 Bf-109G-6AS Hohenjäger
AZ7510 Airspeed Oxford Mk.I Special marking limited edition
AZ7511 Messerschmitt Bf 109G-6 Trop
AZ7513 P-51B Mustang Captured
AZ7514 P51B Mustang Foreign services
AZ7515 P-51B Mustang 52nd FG
AZ7516 P-51B Mustang 357.FG Aces

AZModel 1/48
AZ4869 Zlin Z-50LS
AZ4870 Polikarpov Po-2 Special Markings

www.azmodel.cz



CZECH THIS • CZECH THIS •

Eduard Brassin

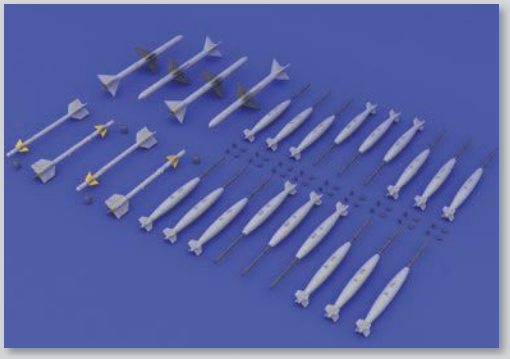
Plenty of useful items from Brassin this month, including some more parts for that exquisite Fw 190, and for all those of us planning on painting an Academy F-4J in 74 Squadron markings there is a lovely set of resin exhausts. Enjoy…

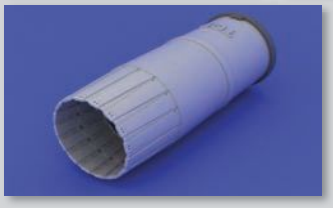
1/32
632070 MG 14 Parabellum World War I gun

1/48
648197 AIM 9J Sidewinder
648236 GBU-16
648237 AN/AAQ-28(V) Litening pod
648238 US 75gal metal drop tanks

1/72
672079 F-4J exhaust nozzles
672086 Fw 190A propeller
672088 Fw 190A-8 engine & fuselage guns
672082 Fw 190A-8 engine
672089 F-4 armament

www.eduard.com



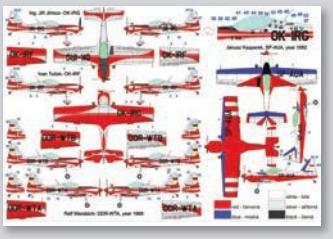


Brengun

BRP72018 Z-50 Golden Age

Brengun's latest kit is an injection moulded plastic kit of the famous Czech aerobatic plane.

www.brengun.cz



RS Models

The DFS 230 was a German transport glider operated by the Luftwaffe in World War II. It was developed in 1933 by the Deutsche *Forschungsanstalt für Segelflug* (DFS German Research Institute for Sailplane Flight) with Hans Jacobs as the head designer. The glider was the German inspiration for the British Hotspur glider and was intended for paratrooper assault operations.

RS Models offer two new kits of the type in 1/72:

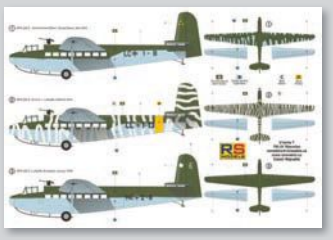
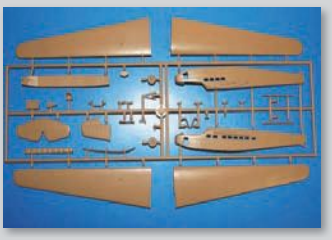
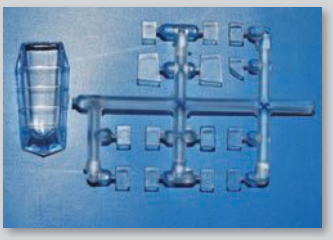
#92172 DFS 230 *Unternehmen Eiche*

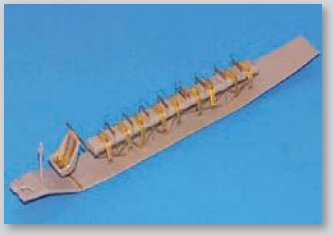
Operation *Eiche* (Oak) was the rescue of Italian dictator Benito Mussolini by German paratroopers led by Major Otto-Harald Mors and Waffen-SS commandos in September 1943.

#92187 DFS 230 *Unternehmen Rösselsprung*

Operation *Rösselsprung* (Knight's move) was a combined airborne and ground assault by the German XV Mountain Corps and their allies on the supreme headquarters of the Yugoslav Partisans located in the Bosnian town of Drvar in the Independent State of Croatia during World War II. The operation was launched on 25th May 1944 and was aimed at capturing or killing Marshal Tito and destroying the headquarters, support facilities and co-located Allied military missions.

www.rsmodels.cz



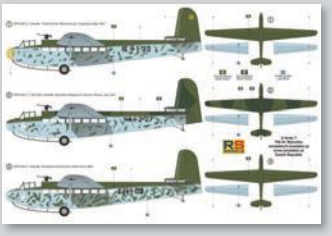


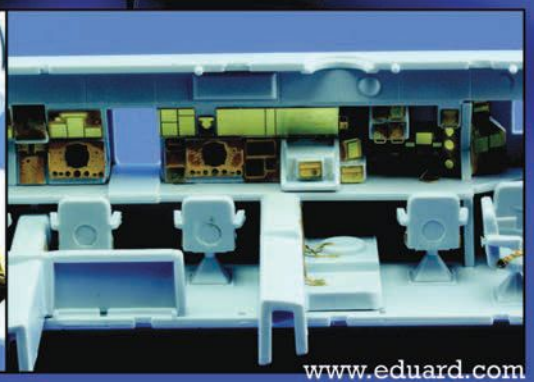
photo-etched sets and mask

eduard

Shackleton MR.2

1/72 Airfix

- landing flaps (72616)
- exterior (73542)
- fuselage interior (73544)
- cockpit interior (SS542)
- painting mask (CX434)



www.eduard.com

Sprue Brothers Models LLC

IN STOCK

Either You HAVE It Or You Don't. We're Crystal Clear With Our

- ✓ SELECTION
- ✓ SERVICE
- ✓ SHIPPING

KITS
TOOLS
SUPPLIES
ACCESSORIES

spruebrothers.com

Find us on Facebook

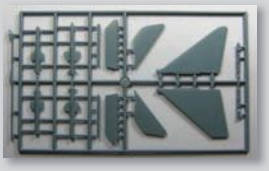
CZECH THIS • CZECH THIS •

Sword

Long overdue from any source is a 1/48 kit of the two seat Lightning trainer in injection moulded plastic. Sword have two. Bambalay!

#48008 1/48 BAC/EE Lightning T.Mk 4
#48009 1/48 BAC/EE Lightning T.Mk 5

www.swordmodels.cz



SBS Model

De Havilland Comet DH.88 Comet French & RAF

By **Andy McCabe**

Kit No: SBS7005
Scale: 1/72
Type: Resin

The De Havilland DH.88 Comet was a twin engined aircraft designed for the 1934 MacRobertson Air Race from the UK to Melbourne in Australia in 1934. Only five were built, three of which took part in the race and one of which won. The Comet was a twin seat wooden and fabric airframe with a fully covered in cockpit, capable of a maximum speed of 237mph or cruising speed of 220mph with a range of 2,925 miles and was powered by two de Havilland Gipsy Six R Six cylinder air cooled inverted inline engines.

One aircraft Grosvenor House was utilized by the UK Air Ministry and flown to RAF Martlesham Heath for evaluation, repainted silver and renumbered K-5084. A second, G-ACSR, was renamed Reine Astrid in 1934 and flew Christmas mail between Brussels and the Belgian Congo. This was then sold to the French Government and re registered as F-ANPY. Two aircraft remain in an airworthy condition to date.

The SBS Kit contains forty two grey and two clear resin parts, two etched frets, six white metal parts, two decal sheets, one instruction booklet and one colour painting and marking guide. The parts are superbly moulded with a delicate finesse to them. The decals are nicely printed and the instructions are clear and concise but have no colour call outs.

Construction began by washing all of the resin parts in warm soapy water. I then sprayed all of the interior parts with Revell Tar Black and assembled them together. The level of detail on the parts is superb and I had to double check that they were indeed resin and not plastic. The instrument panels have acetate instruments and etched panels, which are again very nicely produced, the seats have etched seat belts and the whole cockpit is very neat when assembled and painted.

The fuselage halves were now glued together. These have the same pin and hole alignment as plastic kits have, which is the first time I have seen this on a resin kit. The parts fit together superbly, as good as top of the range plastic kits.

The tail cone was now fitted and then the tail fin and tail planes were glued into place. These have corresponding slots in the fuselage into which they slot very neatly - no butt joints here.

The wings were now fitted, and again they slot very neatly and tightly into position with no gaps. Is this really a resin kit?

The engines were now fitted and the clear resin cockpit masked and dry fitted using Maskol. The model was then given a coat of white primer, then when dry an all over coat of Revell Silver 90 was sprayed on.

The decals were now applied, and very nice they are too. Four options are supplied with the kit:

K-5084, formerly G-ACSS, RAF Martlesham 1935, silver all over
H-609 Escadrille Ministerielle, French Air Force, Saint Cyr 1938, gloss bright Red
F-ANPZ Jean Mermoz-Leo Gimie, Paris Casablanca Dakar 1935, gloss bright red
F-ANPY Cite d'angouleme, Logo Professor Nimbus, Saint Cyr 1938

The undercarriage was now fitted. This comprises very finely cast white metal parts that slot very nicely into place in the engine pods. The resin wheels then fit into these. The props were next, and these were simply painted and glued to each engine. Finally the landing light on the nose and wing tip pitot tube and tail skid were fitted and the model was finished.

Conclusion

This is a very impressive model. The detail is outstanding and as mentioned in the review I had to double check that it was not a plastic kit as the tooling is that good. Very little cleaning up was required as the mould pour lugs are kept to a bare minimum and the parts separate from them very easily. The fuselage and wing/tail parts are very finely cast to a perfect scale thickness with superb surface detail and the fit of parts is also worthy of a mention as they fit precisely, with minimum rectification or seam cleaning required.

www.sbsmodel.com

SUBSCRIBE NOW

Delivered to your door!

FROM UNDER £3.14* PER COPY

15 ISSUES FOR
Only £49.50

30 ISSUES FOR
Only £94.00

SCALE AIRCRAFT MODELLING

MILITARY MODELCRAFT INTERNATIONAL

ONE YEAR SUBSCRIPTION	
£49.50	UK
£64.00	Europe
£85.00	Rest of World
$127.00	USA/Canada (contact Larry Weindorf)

TWO YEAR SUBSCRIPTION	
£94.00	UK
£123.00	Europe
£162.00	Rest of World
$240.00	USA/Canada (contact Larry Weindorf)

Guideline Publications

Subscribing has never been easier, just contact us via one of the following:

Online at: www.guidelinepublications.co.uk

Telephone: +44 (0) 1908 274433 Facsimile: +44 (0) 1908 270614

USA/Canada agent Larry Weindorf: 717-685-5207 info@forthehistorian.com

To: Guideline Publications, Unit 3, Enigma Building, Bilton Road, Denbigh East, Bletchley, Buckinghamshire MK1 1HW

☐ Please tick for **ONE YEAR** subscription to **Scale Aircraft Modelling**

☐ Please tick for **TWO YEAR** subscription to **Scale Aircraft Modelling**

☐ Please tick for **ONE YEAR** subscription to **Military Modelcraft International**

☐ Please tick for **TWO YEAR** subscription to **Military Modelcraft International**

at a cost of £.....

☐ Existing subscriber please tick. ☐☐☐☐ Enter subscriber N0:

☐ **I wish to pay by cheque, payable to Guideline Publications**

☐ **I wish to pay by Credit/Debit Card (Please tick)**

VISA ☐ MasterCard ☐ American Express ☐ Maestro ☐

Valid From: ☐☐☐☐ **Issue No:** ☐☐

Card No. ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Name on Card:..... **Expiry Date:** ☐☐ ☐☐

Last 3 digits on the signature strip, reverse side of card: ☐☐☐

Name:.....

Address:.....

.....Post/ZIP Code:.....Country:.....

Email:.....Contact No:.....

*Price per copy applies for a 2 years subscription.

This offer applies to all renewals from November 2015.

Zeppelin Rammer

Brengun's Counterfactual

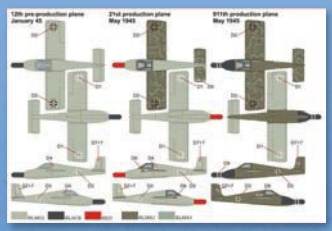
By **Karl Robinson**

Kit No: BRP72013

Scale: 1/72

Type: Injection Moulded Plastic

Manufacturer: Brengun *Hannants/UMM-USA*



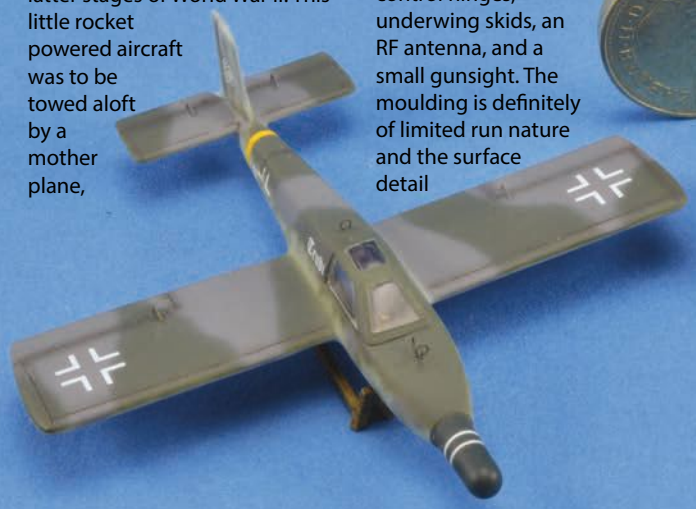
The Zeppelin Rammer was first proposed in November 1944 to combat the hordes of Allied bombers reigning supreme over Germany in the latter stages of World War II. This little rocket powered aircraft was to be towed aloft by a mother plane, most likely a Messerschmitt Bf 109, and released on contact with the bomber fleets. It would ignite its rocket engine and make an attacking pass firing off its fourteen nose mounted 55mm unguided rockets before coming round again to make its ramming pass aiming for the bomber's tail or wings. To aid its survival it had armoured wings consisting of steel and metal tubing as reinforcement, supposedly allowing it to slice clean through the flying surfaces. After completing its task it would glide its way back to ground to be reused another day. Sixteen were initially ordered in early 1945 but destruction of the Zeppelin factory put paid to the project before any were completed.

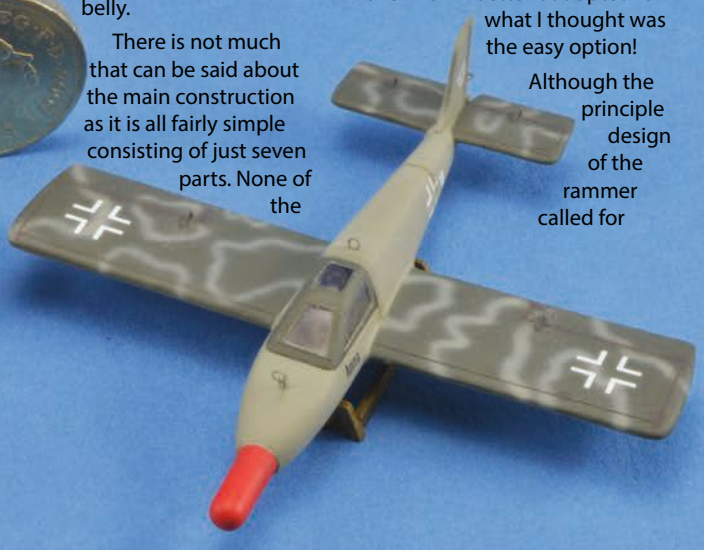
No mention is made on the packaging but there is a nice surprise when you open the box as you get not just one but two kits provided. Each consists of a single tan coloured sprue with just sixteen parts, a clear canopy, plus a small photoetch fret with additional details such as control hinges, underwing skids, an RF antenna, and a small gunsight. The moulding is definitely of limited run nature and the surface detail is limited to the odd panel line, although it is all flash free and good quality. There was a slight offset to the moulds on both of my sprues which meant each part has a small ridge that needs cleaning off before construction. This is a minor issue on such a small kit so is easily put up with.

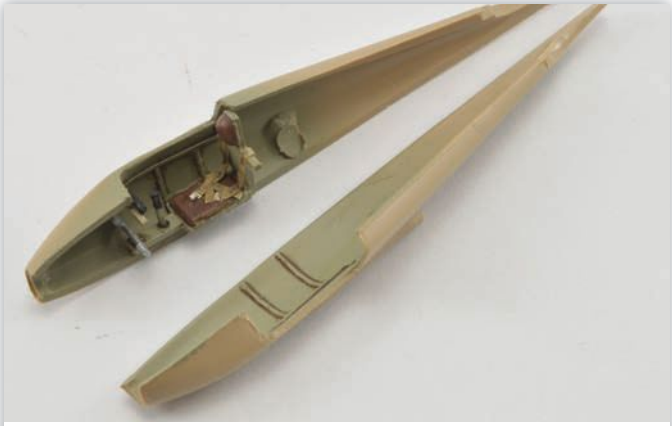
A rudimentary interior is provided consisting of just four plastic parts and made up of a floor/seat base, rudder pedals, control stick and seat backing; not the most detailed but under the tiny canopy it pretty much disappears anyway. No weight is needed in the nose as there is no undercarriage on the aircraft as the real thing was to have a retractable skid underneath, so tail sitting is not an issue. Three further parts make up a wooden trestle for standing the static aircraft on when at rest so it doesn't wobbly around on its belly.

There is not much that can be said about the main construction as it is all fairly simple consisting of just seven parts. None of the main parts have any real positive location and you are mostly butt joining everything together. This works OK with the single piece tail plane section which does sit into a slight V, but causes issues with the larger parts such as the wings. When dealing with any limited run kit you will find that a good selection of sanding sticks and quality filler are your friends, so don't expect everything to drop together perfectly. I would seriously suggest that you drill and pin the wings to the fuselage for additional support as the vague fit of the butt joint is not strong enough on its own. I had one wing break off three times and another twice during the final stages, requiring much remedial work to the filling and paint job on each occasion. As they say, you learn with experience… although I should have known better but opted for what I thought was the easy option!

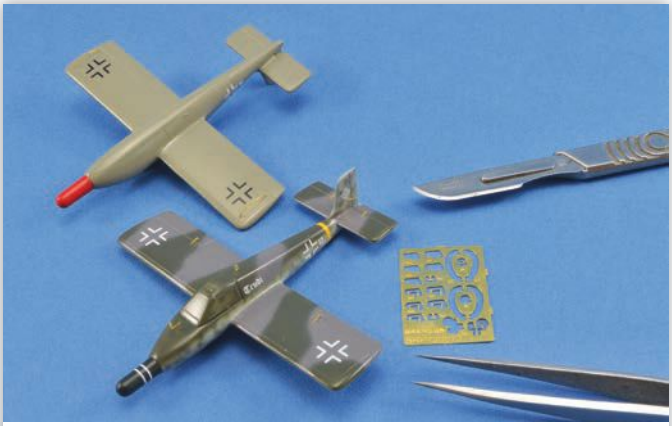
Although the principle design of the rammer called for



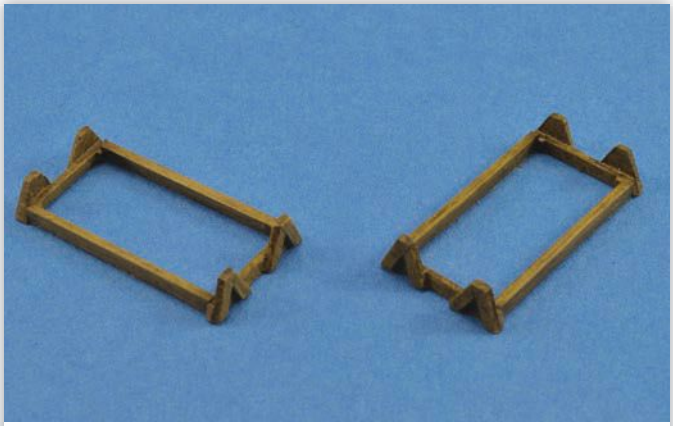




The cockpit is pretty basic but nothing much can be seen through the canopy anyway so don't put in too much time or effort



The tiny photoetch is best attached at the end of the build as any handling at this point will prove disastrous



Trestles are provided for standing the aircraft on. These were painted up as wood using Tamiya XF-55 as a base, followed by a gloss coat and streaked burnt umber oil paint to create the basics of wood grain

Much fun can be had with the painting as you can go with what is provided in the box or choose your own route. No one can say you are wrong

rockets in the nose of the aircraft no provision is made for them in the kit. All that is provided is a long nose cap/cone that would have covered them up until they were required, so if you want to replicate any of that detail you will have to rely on your own scratch building skills.

There was no way that the tiny photoetch pieces would take any handling on such a small model, running the risk that they would ping away into the land of oblivion and hands of the carpet monster. In this instance I chose to leave them until the very end, but to assist fitting I drilled 0.3mm holes to aid fixing them prior to the painting.

Much of the fun of these little kits is in the painting as you can either follow the suggestions provided in the kit or use artistic license to create something different, which is quite a refreshing break. Having two of them I chose one scheme from the box, then used the remaining decals provided to create my own version using the standard day fighter colour scheme of RLM74/75/76 with mottling, not something that's easy on this size kit.

Thankfully those pre drilled holes were a boon when it came to fitting the etch parts. It did make life easier but still took well over two hours to fit them all on both models and in that time I used up every possible expletive at least twice, and developed many new ones as well. The small gunsight on the nose proved the most awkward requiring it to be bent at a 90 degree vertical angle, then twisted 90 degrees horizontally.

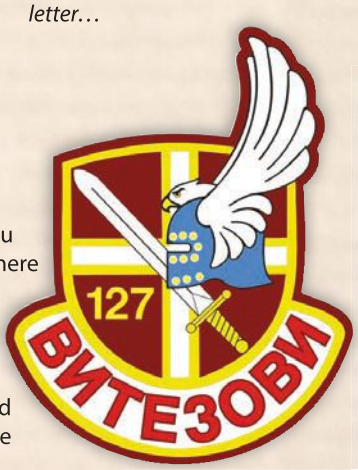
The box art shows one of these little rammers smashing through the tail of a B-17 which gave me the idea for a small diorama. I pictured one of these being returned to the airfield on the back of a truck along with the broken bits of tail as souvenirs. Unfortunately time and other things have gotten in the way but I will revisit this one day soon.

Despite these being fairly basic kits to construct, the cleaning up of parts, and the epic struggle with the photoetch, I did thoroughly enjoy getting them built. Some of that may be the freedom from accuracy and such, and some down to it being something a little different, but whatever it was they were good fun.

Letter to the Editor

The following text and images have been received from an anonymous source, and while we are unable to verify all its content it has been deemed interesting enough in itself to offer up to readers to draw their own conclusions. The language has been largely unedited, but one or two expletives have been modified. Please note the inclusion of this piece does not reflect editorial policy or opinion. Scale Aircraft Modelling *would welcome any comment or response on the content of this letter…*

Images accompanied the mail and where captions are included they have been added by the author to the original JPEGs. Other images clearly copyrighted have not been used.



Hello Warpaint team

I'm 'Knight'. It's my pseudonym because of security, and for verification of my sentences that are down the text, I'm an airman. Anyway, let me get to the point.

I have seen that you are a serious company, who publish facts. You see there are some facts and evidences, that in 1999, a year when there was aggression against Yugoslavia, that their MiG-29s have achieved some aerial victories and it would be nice if you publish sometime some info about that war, that you know real facts, and that the rest of the world finds out about the great heroism of Yugoslav pilots, and the quality of the MiG-29, because they showed a high amount of it, and because your books are popular all over the world in enthusiasts circles.

You see there were two aerial victories, that are known and confirmed among airforce staff and personnel. The first was on March 24th 1999 when pilot Major Iljo Arizanov flying MiG-29B (9-12) shot down that F-117A from 7 Squadron 'Screaming Demons' over Kosovo with an R-73 missile in the area between Suva Reka-Djakovica. That was a few minutes after he took off from Nis airport. That was nearly 20.30hrs. Weather was very clear and Iljo himself said that he saw an aircraft clearly in his ILS (HUD) and that his radar was functional, and what is most important all of Yugoslav MiG-29s were fully functional. Yes, there was ECR and jamming all the time from the NATO side but you can't jam 'KOLS'. There was a second one on 26th March when Yugoslav pilot Colonel Slobodan Peric damaged in a dogfight an F-15C from 493 Squadron 'The Grim Reapers' which is stationed in RAF Lakenheath. It was a few minutes after 17.00hrs. The F-15C left the fight and managed to safe land at Tuzla airport in Bosnia.

There were more lock ons on NATO aircraft during aggression, and that is confirmed by the airmen from Bosnia and Herzegovina and Republika Srpska,and Serbia. That second fight had it's position over Bijeljina in Republika Srpska because Yugoslav MiG-29 had violated their airspace. Colonel Peric's wingman, Captain Zoran Radosavljevic was killed in that mission. Both of them were shot down after that fight, with AIM-120s from the same squadron. Colonel Peric had ejected safely from the MiG-29 and he was transported back to Serbia without any harm.

There were only twelve fighting functional MiG-29s in the Yugoslav airforce and there were in the first days of war nearly 1500 NATO and USAF aircraft stationed around Yugoslavia. Those MiG-29s (some of them) survived the aggression and continued to serve in 101 Squadron. You have watched that movie '300' and know about that legend? It was something like that! There is more interesting facts how small country and small airforce managed to give very hard hit to such a large force of aggressor.

And yeah... almost to forgot... there is in Wikipedia that document about some guy who is called 'Gvozden Djukic' who shot down that F-117 during the aggression. Let me say one true fact - that guy don't exist and that is false. And there is also on e-net all kind of untruths about the Yugoslav airforce, from well known authors and all bunch of them, even from Yugoslavs, but this, what I have written is only the truth.

There was one more action, not with MiG-29s but with G-4s (it's an aircraft that Yugoslavia produce, it's an assault aircraft and for training), when they have bombed surrounding NATO and USAF airports and gave them heavy losses. They destroyed many aircraft on the land and helicopters, mainly AH-64s who was prepared for action. Those pilots were bravest in modern airforce history.

'Knight'

WELCOME ON
PLASTIC PLANET
MODELS AND DECALS

Martin 167F/ Maryland Mk.I 1/72

Grumman Hellcat Mk.II 1/72

Messerschmitt Bf 109E-1 1/48

310. Czechoslovak Fighter Sqn. in Battle of Britain
PPD-72001

312. Czechoslovak Fighter Sqn. in Battle of Britain
PPD-72002

1/72

Gloster Gladiator over North and East Africa
PPD-72004

Allied Bombers in the Battle for Greece
PPD-72005

Allied Fighters in the Battle for Greece
PPD-72006

Hawker Hurricane with Fabric Wing
PPD-72007

310. Czechoslovak Fighter Sqn. in Battle of Britain
PPD-48001

312. Czechoslovak Fighter Sqn. in Battle of Britain
PPD-48002

1/48

WWW.PLASTICPLANET.CZ

Available in the UK: HANNANTS LTD

A Silk Purse from a Sea Pig's Ear?

Building the F-111B

By **Tony Grand**

True Details Escapac seats in modified cockpit with seats under cockpit rim

The underneath of the escape capsule showing new floor and bracing at rear

Adding reinforcement to fuselage aft of escape capsule

Kit No: H-208

Scale: 1/72

Type: Injection Moulded Plastic

Manufacturer: Revell

My own answer to the question in the title is 'perhaps not'. In fact I suspect I should have adopted the advice of the countryman who said when asked for directions, 'If I was going there, I wouldn't be starting from here…'

However before all that, some background. Tommy H. Thomason, whom I regard as the doyen of researchers on aircraft of the US Navy and Marines, calls it misunderstood and much maligned. In his monograph on the plane, under the Ginter imprint, and on his website *Tailhook Topics* he puts the development of the aircraft in context, not least the rivalry between the US Navy and Air Force. The extent of this inter service politicking leads one to believe that some in the Navy did not want the plane to succeed, as it was not *their* plane, rather a version of an Air Force plane foisted on them by Defense Secretary McNamara: a threat to their autonomy. Thomason has in his book an interesting analysis of the alleged deficiencies of the plane; too heavy, bad pilot visibility for landing etc. As he points out, none of these drawbacks was new to the development of a machine at the sharp edge of technology but there was another factor threatening the F-111B. The requirement to which it was built and sized was that of Fleet Air Defense, protection of ships against Soviet bombers carrying air-to-surface missiles. Experience in Vietnam however where the F-4 had found itself in dogfights with MiGs, had led to a shift of focus in the Navy towards Strike Escort and Air Superiority, roles which the F-111B was ill-equipped to fill.

The upshot of all the politicking and policy changes was that only seven F-111Bs flew. There were three different configurations, not counting paint schemes and detail differences; the first three, the middle two, and the final two. The first five had a short nose and translating cowl inlet while the final two had a longer, more aardvarkian nose and a blow in door inlet. The first three F-111Bs were BuNos 151970, 971, and 972. 970 had a unique paint scheme as the grey/white demarcation line on the forward fuselage was much higher up than on subsequent airplanes. The first three also had Escapac type ejection seats rather than the crew escape module, no rotating slat on the wing glove, underwing inlet BLC vents, an open tail hook installation, the vertical-fin-tip IR warning antenna, and a knife-edge boat tail. They also had F-111A type nose landing gear although 972 was modified to have a launch bar nose gear during its test program at Hughes. The fourth aircraft 151974 was used for carrier suitability trials, whilst 152714 and 152715 were preproduction models. Live firings of XAIM-54A missiles were first made from 151972. Should you decide to build an F-111B close attention to all the detail given by Thomason in words and pictures is essential.

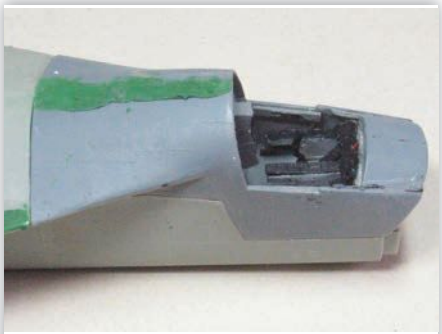
Choosing the Subject

It was chancing on Thomason's website that led me to build the F-111B at all. I had previously found it less attractive than the F-111A and its successors, an exercise in aesthetics that you might find strange to say the least. Reading a detailed history of the type clearly piqued my interest. Perhaps I saw it as a what if that had actually flown and that under not too different circumstances could have made the cut.

The main undercarriage bay assembly in place – the part used came from the F-111A kit

Making good

Boundary layer outlet grills courtesy of SR-71



Not the best fit in the world but things are taking shape

Surgery complete and the resin nose is in place

The modified spike and splitter plate assembly

Thomason's book has a section on modelling the plane, which suggests two options in 1/72; either finding the 1967 Revell TFX kit, which included parts and decals for both the F-111A and F-111B, or working from the Hasegawa F-111C or FB-111A which would be bases for building F-111Bs 5 or 6 and 7 respectively.

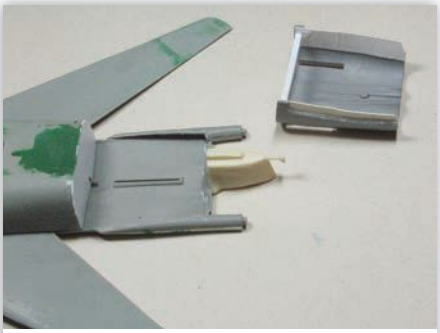
I went down the TFX route as I found one at Kingkit for a not excessive sum and Hasegawa prices always make me cough. However I was tempted by Thomason's mention and picture of of a conversion set made by Pete's Hangar of Queensland, including the F-111B short nose, the complete launch bar nose gear in brass, correctly sized F-111B main and nose wheels, an IR detection pod (for 151972 onwards), a tail hook installation (appropriate in shape for some of the prototypes), and paint/markings instructions and decals for the first five airplanes, including the large blue Phoenix Missile System logo that was on the tail of 151971 and 972. Also included were the early knife-edge boat tail and the F-111B specific speed bumps, i.e. the pointed extensions to the fuselage each side of the jet exhausts, modifications you would need if using the Hasegawa kits.

Acquiring this conversion kit knocked out the Revell/Hasegawa price differential by a long way and it got worse. I had originally thought I could scratch build the main undercarriage and detail the main undercarriage bay, but after hours of sketches and measurements I realised it was beyond me. So I did as suggested in the modelling section of Thomason's book and obtained a Monogram EF-111A to cannibalise those parts. That at least was cheap. However I'm getting ahead of myself. The clincher in choosing which of the magnificent seven to build was the rediscovery (I don't remember buying it but it was clearly in France) in my library of Air Fan Album No. 16, with articles from the 1980s, including the cryptically titled 'No Cat Blues: *le F-111 dont personne ne voulait* (the F-111 no one wanted)'. It was indicated as part one but I've not been able to locate part two. The article included 1/100 plans for the first prototype 151970. Scale them up on the scanner. Case solved!

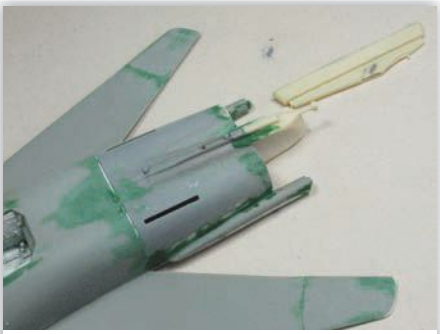
The Build

Although the general outline of the kit is accurate there are a number of areas that need amending, detailing or replacing. The first of these is the cockpit. Fortunately given the surgery that's needed Revell made the F-111's unique escape capsule removable. Given that this kit had various toy like features, though the folding main undercarriage is a work of art, so mock ye not, and was made to be played with the cockpit isn't too bad and isn't very visible through the canopy. Nevertheless it had to go, not least as there was a chance I would open the canopy up. I first cut the cockpit interior right back to the instrument panel and consoles. As the escape capsule was not at the stage to be fitted to the plane, 151970 had Escapac ejector seats, and True Details provided these, Eduard sets SS175 (interior for the F-111D/F) and CX086 (masks) being purchased at the same time.

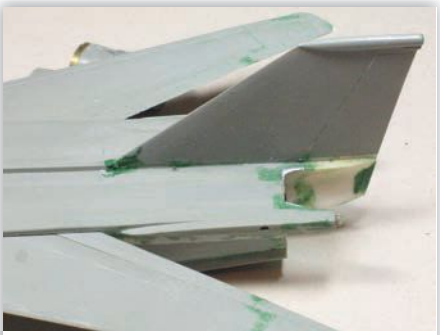
More surgery now as Thomason draws our attention to the fact, and has a good photo to illustrate it, that the tops of the ejection seats are set back under the rear cockpit rim to position the crew correctly relative to the controls, given the extra bulk of the seat, rails and parachute (a section of the upper fuselage behind the canopy was jettisoned with it to provide clearance). Back in our miniature world this means making our replacement tub slightly longer than the original item and fixing it in place appropriately. Although the rear bulkhead was only sparsely fitted out, it still needed a representation of the large console between the crew seats. A box structure was made from scrap plastic, to which I fixed sections of Eduard instrument etch left over from previous builds. Illustrations in the F-111B preliminary flight manual were useful for that, as they were, with photos in Thomason's book, in modifying the Eduard instrument panel. Some old Reheat instrument panels and scrap shim were used here. At this point although I did



The replacement rear showing bracing and the strengthening bulkhead on the TFX



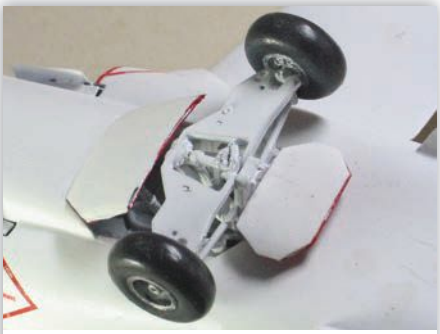
The boat tail and the hook mounting



Fin added, boat tail and shape of fairing over exhaust corrected

Kit exhaust and modification compared

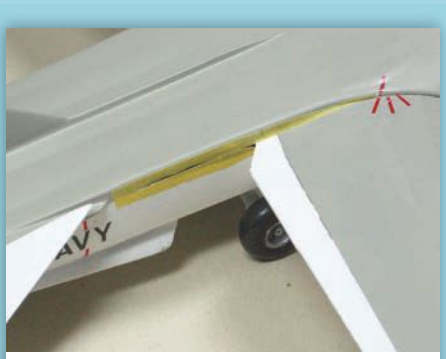
Cockpit with instrument shroud added



Main gear and doors

Arrestor hook scratch built from tube and scrap plastic

The oddly shaped instrumentation probe



Wing seal from Tamiya tape

not fit it I made the instrument shroud, working from photos and using trial and error, from my usual tonic water can shim. A dry fit of the Escapac seats showed they fitted well, and before painting them I added a strip of styrene on the outside edge of each to simulate the guide rail. Not enough room to fit the inner invisible rails…

I fitted some stout square section styrene stock across the rear of the escape capsule to reduce its flexibility, then moved to the next stage, fitting out the lower fuselage section, the body being split horizontally. I reckoned some bracing was needed there as well, so I fitted a piece of thick styrene card across the body immediately behind where the capsule would fit. I subsequently had to cut a hole in this to take my scratch built nose bay which is longer than the aperture in the kit underside. This was one of several instances where I had not looked ahead.

At this point I started cannibalising the EF-111A kit, the first part to be used being the main undercarriage bay. After some dry fitting and trimming, this went in well. Differences between the edges of the bay and the aperture in the TFX kit were made good with styrene strip. The EF-111A bay assembly includes part of the intake tunnels so this was a bonus, in reducing any see-through. Before closing up the fuselage I replaced the scribed on boundary layer outlet grills with some Eduard etched items left over from an SR-71 build. These were after the build was completed replaced in turn by some brass louvres intended for a 2mm scale diesel loco, as I thought they looked more convincing. They are of course invisible from a normal view point. Other operations at this point included rounding off the edges of the wing apertures as they are square in the kit, fitting the extended tips to the wings, which needed a little reshaping at the tips to make them squarer, to make the longer wing of the F-111B, and removing the mounting for the escape capsule. I was now able to bring together the upper and lower fuselage halves, trapping the wings at the same time. Some modellers are rather sniffy about having swing wings I know, but it pleases the grandchildren and me. Some fettling was required as there was some slight short moulding on the starboard side of the upper fuselage/wing glove part. Likewise the escape capsule was no great fit, but I'd known that from dry fitting so green stuff to the rescue.

Next came the nose. This was another instance of my thinking afterwards that I could perhaps have saved myself some effort and money. The kit nose is in two sections including a portion in front of the cockpit into which you can fit a rudimentary radar assembly, and onto which you can push fit a radome, F-111A or F-111B. Now I knew from Thomason's coverage of this kit that there was a shape problem in that the cross section of the F-111B nose option where it joins the fuselage was too square, wide and deep in cross-section. Revell had assumed that the transition to the nose began in front of the windscreen. It actually began at the forward edge of the crew module and then vertically down to the bottom of the fuselage (he has diagrams on his blog to demonstrate both discrepancies). I additionally found that the shape of the nose in side elevation does not tally with the photographs nor *Air Fan* and Thomason's plans and came to believe that the Pete's Hangar resin nose would be an improvement in all respects. However it actually involved me in work I could have avoided by remodelling the kit nose. I cemented the kit F-111B radome to the transition section, then marked off the cutting line with tape to allow the resin nose to be added. Having done this I found that the replacement nose was a little oversize possibly from expansion of the resin. The upshot was sanding the resin down and using a bit of filler in front of the windscreen. No big deal but I could have done that with the kit nose.

Moving rearwards along the plane the next area for modification is the intakes. Part of the intakes translated to create an opening to lose excess air at low speeds and a cutaway allowed that section to move over the splitter plates and BLC ducts. A simple procedure with razor saw. Next modifying the intake spike/splitter plate assembly. First the rear of the spike needs to be cut down to allow mounting in the intake to the correct depth, a matter of trial and error. I then sawed off the splitter plates themselves as they were well over scale thickness. I replaced them with pieces of tonic water can and on their rear face glued styrene strip to represent the strakes that hold the plates clear of the fuselage. This was all done on the basis of the drawings, photos and the kit parts.

Now I had concentrated a lot on the nose area but, stupid boy, I had assumed the rear of the fuselage was accurate. When I came to look at fitting the exhausts however it became clear that the whole rear was too shallow. Accordingly I cut away the lower rear fuselage aft of the wing slot replacing it with the corresponding section from the EF-111A kit. As the fairings that carry the horizontal stabilisers are different on the two planes I left those in place on the TFX body but removed them from the donor kit. This left a gap on the replacement portion and I cemented styrene sheet on the inside of it to act as a seat for filler, as well as adding styrene bracing to that and a bulkhead to the TFX. More green stuff.

The TFX kit has the distinctive boat tail for 151971, but after deepening the rear fuselage it was too shallow in side elevation and I decided to use the resin replacement from the Pete's Hangar set. This turned out to be rather blunt in shape, more of a trawler than a speedboat and not concave enough. It needed a lot of filing and sanding to get the shape right. I next added the mounting for the hook, modifying the Pete's Hangar item as it isn't correct for 151970. I scratch built the hook from aluminium tubing and scrap styrene and mounted it later. At the same time I corrected the shape of the fairing between the speed bumps and the fin by adding pieces of metal shim.

The final modification in this area was that of the exhausts. Those in the TFX kit are the right

size and shape but rudimentary. Those in the EF-111A kit are quite different, following development of the F-111. It was therefore better to improve those from the TFX. I first added a section of brass tubing to the end of the exhaust nearer the fuselage to enable a better fit, then the extra metal bands were made from aluminium foil tape, designed for pipe lagging I think, but invaluable for modelling. The exhausts were painted with a blend of silver, gold and black Humbrol enamels, then overpainted sparingly with Humbrol gunmetal. I left them off along with the horizontal stabilisers till the end of the build, to make the main painting easier.

Returning to the nose end I added the instrument shroud, then glued the canopy on. As the TFX canopy was slightly scratched I thought of replacing it with that from the EF-111A but that turned out to be rather flat in cross-section viewed from the front, so the kit item remained.

Painting and Decalling

The paint scheme was a standard Light Gull Grey upper surface with white under surfaces. After masking off the canopy with the Eduard masks (designed for Hasegawa kits, they just needed little bits of added Tamiya tape here and there) I sprayed overall with Tamiya white primer from a rattle can, then masked off the underside and the elevators, flaps and rudder, using Blu-Tack to try and get that distinctive demarcation forward of the intakes - rather like Bradley Wiggins' sideburns. I sprayed the upper surfaces with Model Master rattle can Light Gull Grey and learned again that if you spray too heavily with these enamels you can get an orange peel effect. Nowhere too obvious. I then masked off round the shape of the nose anti glare panel and brush painted that.

The decalling was rather fraught. The Pete's Hangar decals proved to be the most fragile I have encountered in my whole time as a modeller. Everything broke up and in most cases shattered. The result of this is that only the stars and bars and the red warning stripes are correct, though only one of the former is from the PH set. The Navy from stock is too large, the numbers on the fin are too small and the wrong style. I couldn't find correct ones anywhere on the web. Xtradecal decal stripes came in very handy, not least for the barber's pole instrument probe and the tail hook. I used them also for the turbine warning stripe at the rear of the plane, a bit of a hangover from when jet engines frequently disintegrated.

Final Stages

During other stages of the build I had built the undercarriage. The main gear came, you guessed it, from the EF-111A, whilst the front assembly was a combination of the sturdy brass item from Pete's Hangar (a one piece item comprising the undercarriage bay end wall and the leg) and the retraction strut from the EF-111A (easily fitted). The Pete's Hangar set has a retraction strut but it is intended for the later prototypes, whereas 151970 had the F-111A type. I modified the EF-111A undercarriage doors for the main gear and scratch built the nose gear doors. There are none in the TFX kit and the EF-111A items have a large bulge for a sensor housing. To represent the pantograph assembly on the rear main undercarriage door, I used some appropriately shaped, leftover etch components. I added the arrestor hook and the nose probe at this stage, as well as wing fold seals, made from Tamiya masking tape, using F-111A photos as a guide. The horizontal stabilisers were linked through the fuselage by stout brass wire. The TFX kit had a nice though fragile arrangement but fitting the tailplanes at the appropriate time would have hampered painting.

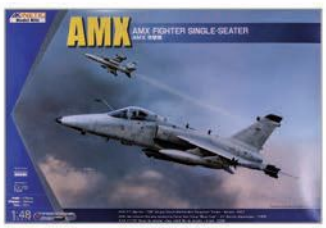
Conclusion

With hindsight perhaps simply combining the TFX and EF-111A kits would have been the way forward but given the way I work I would probably still have bought everything available. I am happy with the result - not a lot of them out there after all. The plane is very elegant, a fact remarked on by friends and family. In the 1/1 world the rest is history. The Navy got the plane it wanted, in the form of the Tomcat which Grumman was able to produce successfully, I think, largely because it was well along the learning curve with the F-111B, not least with the Phoenix fire-control system. The F-14 was of comparable size, though lighter and with developed engines.

References

Grumman Navy F-111B Swing Wing - Tommy Thomason, *1998*
Tailhook Topics - Thomason's website
No Cat Blues - Stéphane Nicalaou, *Air Fan* 112, 1988
F-111 Aardvark - Ken Neubeck, Squadron Signal Walk Around Color Series

WWW.AVIOLIBRI.IT ONE-STOP SHOPPING FOR MODELLERS



HASEGAWA:
- F-16CJ Fighting Falcon 19th Anniversary Special Painting **1:48** (09382)
- F-16C Fighting Falcon Blue Nose **1:48** (09397)
- British Phantom FG MK1 No.111 Squadron **1:48** (09331)
- Harrier GR MK.7 Royal Air Force **1:48** (07240)
- F4U-5N Corsair **1:48** (07236)
- Focke-Wulf FW190A-4 **1:48** (09091)
- Messerschmitt BF109F Eastern Front 1942 **1:48** (09075)

ITALERI:
- G.222 "Panda"/C-27A "Chuck" **1:72** (1311)

KINETIC:
- F-16 DG/DJ Usaf Viper Two Seaters (2 in 1) **1:48** (K48005)
- AMX Fighter Single Seater **1:48** (K48026)

TAMIYA:
- Messerschmitt BF109E-4/7 Trop **1:48** (61063)

TRUMPETER:
- P-51D Mustang IV **1:32** (02275)

IBN PUBLISHING
tune on www.aviolibri.it
NEW RELEASE
Modern Wings n. 2
21 x 29,7 cm
80 pages
ISBN 9788875652432
€ 16,00

AVIOLIBRI
The bookshop that takes you right up to the sky!!!
Via dei Marsi, 53/55 - 00185 ROME - ITALY
Phone & fax: +39 064452275
info: avio@aviolibri.it

FOLLOW US ON f

SPECIAL DEAL!
For orders exceeding € 80,00 (£ 65,00)
SHIPPING FREE!

London Plastic Modellers' Show

By **Stephen Pile**

Sunday 7th December saw the third London Plastic Modellers' Show at the Islington Business Design Centre. The show was an efficiently run event incorporating club displays, traders, demonstrations and an open competition and was a very welcome return of such an event to the centre of London. The venue is excellent, well appointed, and very well connected for public transport with Angel tube station less than five minutes walk away.

The competition standard was as high as ever with congratulations in particular to Mr Konstantine Malinovsky for winning best of show with a 1/72 AFV. Beyond the scope and competence of this writer, but even diehard aircraft modellers could recognise the quality of the workmanship.

Thanks to all the clubs and traders who took part. It was a great day out and we look forward to the next one.

Gold winners were as follows:

1) Aircraft 1/48 and larger the winner was Carl Pratley
2) Aircraft smaller than 1/48 the winner was Colin Pickett
3) Military Vehicles 1/35 and larger the winner was Annabel Eagle
4) Military Vehicles smaller than 1/35 the winner was Konstantine Malinovski
5) Dioramas the winner was James Schembri
6) Figures and Busts the winner was Eric Sanger
7) Miscellaneous (ships, cars, civilian and Sci-fi the winner was James Schembri
8) Junior, Models all types and scale Arthur Forster-Toy

Yes it's tiny! The quality of the paint finish and exquisite detail on this 1/72 AFV won gold in its class and Best in Show

This strange 1/72 Avrocar may have looked like a sci-fi model but it won gold for Mr Colin 'Flying' Pickett in the smaller aircraft category

1/32 Matchbox Lysander. The understated external finish and nicely fitted out interior won it silver in the larger scale aircraft category

Mr Konstantine Malinovsky accepts a well deserved trophy from Guideline Editor David Grummit. Mr Malinovsky won prizes for both armour and aircraft in the smaller scale categories

Placed by the judges by virtue of the beautifully painted textiles. This 50mm Cavalier was exquisite

Trumpeter's M1132 in 1/35. This engineer's vehicle was equipped with interior lighting that showed off the extent of the work carried out by the modeller. Another well deserved gold…

This beautifully painted Trumpeter Hurricane won gold for larger scale aircraft

Silver in the Junior's section. Some of the best mud you could hope to find and some nicely flattened crops – sugar beet? – trampled underfoot by the gun crew. A nicely conceived and well executed diorama

The standard of modelling in the Junior's section was outstanding. It is as if Minecraft had never existed…

Colin 'Flying' Picket demonstrates the use of Vallejo's new acrylic metalizers. The secret of his success with the Avrocar no doubt…

Arctic GR.3

By **Trevor Pask**

Kit No: 05102
Scale: 1/48
Type: Injection Moulded Plastic
Manufacturer: Airfix
Aftermarket: Heritage Aviation: Undercarriage Set
Pavla Models S48010
Martin Baker Mk 9b
Pavla Models U48-20 Upgrade Set for Harrier and Sea Harrier
Skymodels Sheet #48798

A Harrier in Plastic

Early generation Harriers have been poorly served by kit manufacturers, especially in 1/48. What kits do exist tend to be of the Royal Navy's Sea Harrier, the ultimate development of the earlier Harriers, and the variant that received the majority of the media coverage in the Falklands War. As far as I am aware the only GR.3 kit in 1/48 was the one produced by Airfix in the early 1980s. This kit originally appeared as a Sea Harrier but was later modified to represent the GR.3. The changes were mainly a new sprue containing the GR.3 fuselage and a few additional cockpit and canopy parts.

The Airfix GR.3 kit is dimensionally accurate but is a definite product of the early 1980s. The surface detail is heavy and raised, the interior is very basic, as is some of the exterior detail such as the undercarriage, while the fit in some places is approximate to say the least. The kit also suffers from a few more serious shortcomings with the wheel wells far too shallow, while the auxiliary intake doors, which are very prominent on the Harrier, are too shallow and moulded in the closed position, which is only really appropriate for an aircraft in flight. Fortunately the Harrier is very well catered for by aftermarket accessories, and a range of parts can be sourced to improve the basic kit. I chose three sets from Pavla and Heritage Aviation to address some of the more critical issues of the kit.

Building

The first task I undertook was to cut away the kit's very shallow rear undercarriage bay from the two fuselage halves. The Heritage Aviation undercarriage set provides a finely cast bay with good internal detail that is of a scale depth, unlike the Airfix representation. However a sizeable piece of plastic has to be cut away from both fuselage halves, and some careful trimming and test fitting needs to be carried out to get the replacement item to fit.

When I was satisfied with the fit of the undercarriage bay I used the kit parts for the cockpit floor and forward engine detail, before joining the two fuselage halves. These only fitted where they touched and several clamps were required to hold everything together while the cement cured. This poor fit was replicated with the wings, and this problem is the one feature that betrays the kit's age. Airfix tried hard for a number of years with a fraction of the resources of other manufacturers, but sometimes the net result of their effort to give modellers kits of types such as the GR.3 was a little simplistic.

The intakes clearly fall into this category. The square auxiliary intake doors were very prominent on early Harriers, and the doors were open or partially open whenever the aircraft was on the ground. The kit parts simply show these features as unconvincing depressions. Lots of cutting and work with plastic card can make this area good, but several aftermarket conversions are available to make life easier for the modeller. I used the resin intakes made by Pavla which are very well moulded and are a direct replacement for the kit parts. The Pavla set also provides replacement engine nozzles. The kit parts are rather flat and are simply not convincing because they lack any sense of depth. The Pavla replacements are far superior and like the intakes are a straightforward and perfect fit.

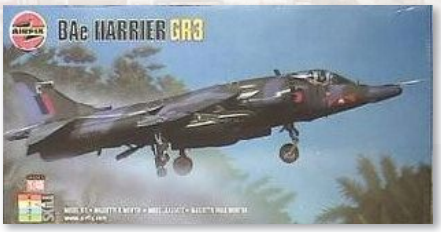
Painting

Most RAF GR.3s were finished in the wrap around grey and green scheme worn by most British tactical aircraft in the 1980s and early 1990s. Some were painted in experimental all grey schemes which were the precursors to the camouflage of contemporary aircraft. Notable variants however were the display aircraft which tended to have coloured tails, and the aircraft deployed to Norway which had a white water based paint roughly applied over the green element of the standard scheme. It was this Arctic scheme that I decided to attempt in this project. The Airfix kit includes an option for a standard grey and green Harrier, as well as display aircraft. Some of these decals could be easily adapted for an Arctic scheme, but Skymodels produce a decal sheet for a host of Harriers in 1/48, one of which is for a 1 Squadron machine that was deployed to Bodo in Norway in the mid 1980s.

From the research I undertook it was apparent that the white paint was applied very roughly and unevenly over the green areas of the aircraft. To replicate this I essentially completed the model in a grey/green finish, removed all the masking, and then carefully, but not too carefully, masked out the grey areas again. Thinned white enamel was then applied by hand, followed by a white acrylic misted on from an airbrush at low pressure. The intention was to create a mottled appearance and not to obscure the green completely. This uneven appearance was complemented when my deliberately less than careful masking was removed, to reveal a few random areas of green showing at the demarcation line between the colours.

The decals were applied on top of the usual coat of Klear. I used a mixture of kit and aftermarket decals, referring to my reference material as a placement guide. Skymodels are well known for providing a huge range of options on their sheets, but painting and positioning guidance is not a strong point of this manufacturer. This is a minor point given the value for money provided by the sheets, but modellers do need to check their references. The main issue with the winter camouflaged Harriers was that some maintenance stencils seem to have been covered up by the paint, whilst others were reapplied quickly on top of the temporary finish. The practice does not appear to have been consistent, so unless the modeller has a very full set of references the exact finish has to include a degree of conjecture.

When the decals were on I dry brushed a little white paint over some markings to simulate further the rough application of this coat. I then chipped some of the white paint off the gun pods with a cocktail stick. Photographs indicate that the temporary white finish often wore off the gun pods, presumably because they were frequently handled by ground crew. The final stage of the painting process was to airbrush a little Tamiya Smoke along the underside of the model to



simulate some of the dirt that used to be kicked up on take-off and landing.

Finishing Off

With the painting completed, I added a resin ejector seat from the Pavla range to the cockpit. The GR.3 was fitted with a Martin Baker Mk 9, whereas the Sea Harrier had a Mk 10. The seat provided by Airfix is on the generic sprue which they included in both their GR.3 and Sea Harrier kits. It reality the Airfix item only has a passing resemblance to either seat and has to be replaced.

The under wing stores provided are also common across both Airfix kits. However as they were originally designed for the Sea Harrier, a few problems are encountered for anyone who wants to model a GR.3. The smaller sized external tanks were used on both RAF and RN machines, but the large Sea Eagle missiles were never fitted to the GR.3; in fact they were rarely carried by the Sea Harriers and their inclusion is therefore something of a mystery. The rocket pods initially look more promising as these were a standard feature on GR.3s for some years, but the kit only includes the RN types which were a different shape to the RAF versions.

After I had completed the model I discovered that Model Alliance produced a range of aftermarket stores, including the correct type of rocket pod, which would be more applicable to the GR.3. However one of my reference photographs indicated that the RAF aircraft were sometimes fitted with Sidewinder missiles when deployed to Norway. Two Sidewinders are included in the kit, and being reasonable mouldings I decided to use them. The kit's decals were used for the stencil markings on the missiles, which I kept as pristine looking as possible to create a contrast with the well used airframe.

The Heritage Aviation undercarriage components are moulded in a mixture of resin and white metal. Some of the white metal parts, in particular the outrigger wheels, needed some careful cleaning up, but everything supplied by Heritage is a distinct improvement from the basic kit parts. The kit's undercarriage doors were usable, but as they were a little thick I used them as templates to fashion replacements from plastic card.

The final stage of the build was to fit the canopy and attach the odd aerials that need to be dotted around the airframe. A couple of these were provided in the Pavla intake and jet nozzle set, but most of the generic kit parts can be adapted and used as necessary. The canopy was not terribly well moulded, but after some careful trimming and several coats of Klear, it made its way onto the model.

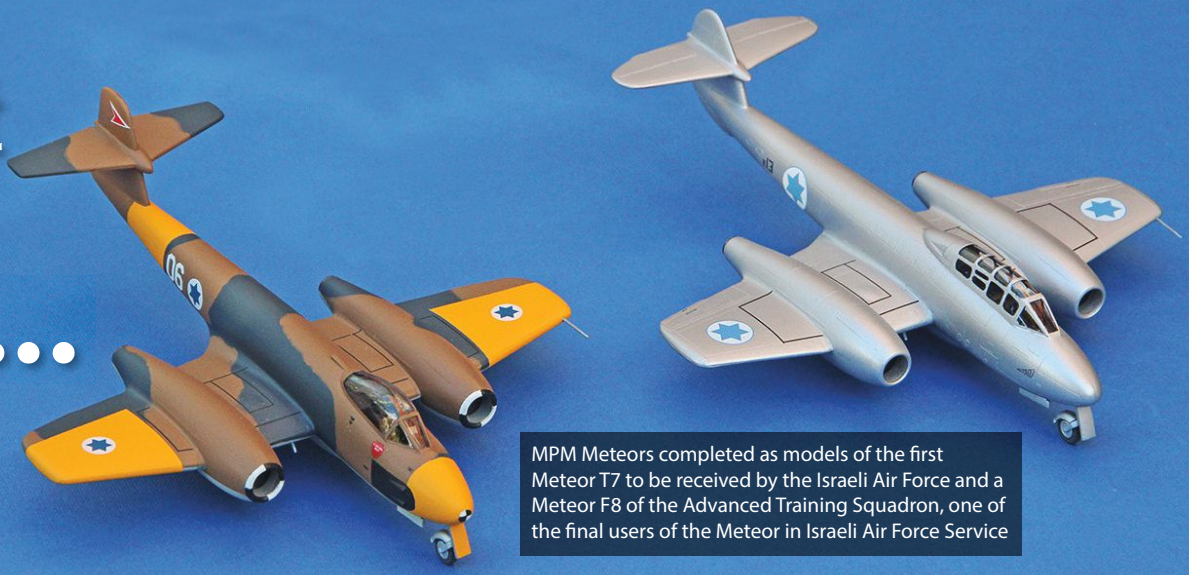
Conclusions

The end result looks like a GR.3 which goes to show that despite their limitations many of the more mature Airfix kits are at least dimensionally accurate. However while the venerable Airfix kit can be greatly improved with a little care and considered aftermarket purchases, a modern newly tooled kit of a first generation Harrier has been long overdue, and the prospect of one such from Kinetic is very welcome.

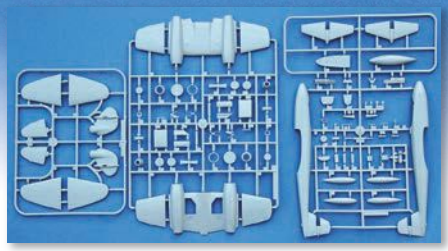
First and Last...

Modelling the Meteor in Israeli Service.

By **Raymond Ball**



MPM Meteors completed as models of the first Meteor T7 to be received by the Israeli Air Force and a Meteor F8 of the Advanced Training Squadron, one of the final users of the Meteor in Israeli Air Force Service



The typical sprues found in the MPM/Xtrakit Kits. There are sprues of generic parts for all Meteor types, with specific sprues for the individual version

Construction starts with the cockpit area, frequently described as a black hole. This is the cockpit of a Meteor F8. It is particularly worn and the seat cushion is not typical as there would have been the light brown seat and backpack of the Martin Baker ejection seat

Following on from my recent article on *The Gloster Meteor in Israeli Air Force Service* the arrival of two MPM/Xtrakits Meteor kits provided the opportunity to try out these kits to add the IAF Meteor to my model collection.

With the exception of a Rareplanes vacform, my previous Meteor models were constructed using the Matchbox Meteor NF kit, and where a different version was wanted I used the excellent Aeroclub conversion sets for this kit. These MPM kits were more modern and detailed than the Matchbox.

I decided to model one of the first and one of the last Meteors in IAF service. Gloster Meteor T7s began to arrive in Israel in June 1953 and on 23rd June, Prime Minister David Ben Gurion presided over an acceptance ceremony of the first two Meteors They had been given the serial numbers 2162 and 2163 for delivery and upon acceptance were renumbered 13 and 14 respectively. The Prime Minister also named the two aircraft Sufa (Storm) and Sa'ar (Tempest). My first model was to be Meteor T7 serial number 13 Sufa.

During the 1960s the Meteors ended their days as advanced trainers and I wanted to model a Meteor F8 in the colours and markings of the Advanced Training Squadron. However an interesting change occurred as my model neared completion.

The MPM Kits

The original MPM/Xtrakit Meteors have been with us a few years now, but recently MPM have expanded the range to include the PR. Mk.10 and the T. Mk. 7.5. All the kits share standard Meteor parts with additional sprues added to cover the specific subject version.

On first appearance the sprues of grey plastic look crisply moulded, with little flash and nice subtle engraved panel lines. The T7 kit contains seventy six parts, with two clear parts wrapped in a protective bag. Typical of these short run injection moulded kits, there are no location pins so careful alignment is needed for a good fit. The parts look good in the box, but as the old saying goes, 'Never judge a model from its mouldings'.

MPM/Xtrakit do give you a good choice of markings with a comprehensive decal sheet, and a real bonus in the Meteor T7 kit is a canopy masking set, which helps protect the clear parts when painting the heavy framing and easing the task. Both Eduard and Montex produce paint masks for the MPM Meteor FR9, which is useful as the Meteor F8 has the same canopy.

The Build

For both the Meteor T7 and the Meteor F8 assembly starts with Step 1, the cockpit. The T7 has a tandem cockpit and construction begins from the main cockpit floor. The plastic is quite soft and care is needed when cutting parts from the sprue. Careful attention to the instruction sheet and trial positioning of the component parts is needed to ensure correct fitting sequence, placement and alignment. When adding the cockpit bulkheads (Parts A18 and A21) to the assembly it is also important to check the fit and alignment with the fuselage sides.

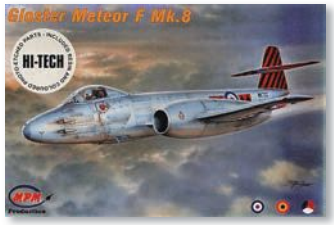
The cockpit comes with front and rear rudder pedal channels, control columns, seats, instrument panels and side consoles. There was not much in the way of side consoles in the Meteor, with instruments and control levers being directly positioned to the fuselage sides. The floor, seats and cockpit interior were all black. I did some dry brushing to bring out the instrument panel and added a little cockpit detail including seat belts. The seats were usually left empty as the pilots wore seat type parachute packs.

With the cockpit assembly complete Step 2 comprises cementing this into the fuselage and joining the fuselage sides together. Dry fitting showed that the cockpit was too wide so I had to file away at the width of the floor and bulkhead, removing fractions from each side until a good fit was obtained.

Cementing the sides together without locating pins was not difficult when it came to side to side alignment. There were the engraved panel lines to assist, however some slight pressure was needed to gain a good fit as the sides were slightly curved front to back.

In the moulding the plastic on the right fuselage half was slightly thicker than the left, resulting in a step down along the joint line. When dry this was sanded down to a smooth finish and the engraved panel lines re scribed.

The Meteor F8 has a single seat cockpit with a



The Meteor Rolls-Royce Derwent engines are centrifugal turbojets so no compressor fans are visible at the front. The front is used to mount engine components that are visible through the intake. This is inside the starboard engine

Inside the port engine intake. Slight differences include a small compressor on the leading edge spar

Meteor T7 port side showing stencil and panel detail. Note the split pane in the rear cockpit canopy

The six parts of the main undercarriage legs in the MPM kit. Assembly of these parts can be difficult as the instructions are not clear and the angle of the wheel fork is critical to getting a good fit and giving the correct ground clearance. I used the undercarriage leg from a Matchbox Meteor (also available in the Xtrakit NF11/12/14 boxing) as a guide

Meteor main undercarriage detail. At the time of my model subjects this was in natural metal and I used Humbrol 56 Aluminium for the wheel well and door interiors

Meteor nose wheel detail. Again the angle of the wheel fork is critical to get the right sit of the aircraft on the ground

Martin Baker Mk2 ejection seat but I was not happy with the kit version and substituted it with a white metal seat from Aeroclub, adding the seat handles from a Reheat etched brass set. When painted it looked the part and contributed to the three grams nose weight stipulated in the instructions. Again apart from the seat packs and belts the interior of the Meteor F8 is completely black, including the seat, sidewalls instrument panel and cockpit coaming. Some dry brushing was used to highlight the detail.

For both models I added lead shot to the nose interior, fixed with superglue to ensure the final model would not be a tail sitter.

Wherever possible I like to leave fitting the undercarriage till last, so that I can finish and paint the airframe unhindered by delicate parts. I therefore skipped these steps and moved to the engine nacelles and wings.

The wings are moulded full span with the lower fuselage centre section so consist of just two parts, top and bottom. Construction begins by adding the Rolls-Royce RB.37 Derwent engine details (parts B8 and B15) to the lower wing. The Derwent is a centrifugal compressor turbojet engine and does not have the fan blades of later axial flow engines. There is some detail on the engine fronts, which can be painted and highlighted as they are visible through the air intakes.

The main undercarriage wells (parts B12 and B23) are also to be added to the lower wings. These just fit over the slots in the lower wings and have no location aids, so care is needed to ensure correct positioning for the later undercarriage fit. With these in place the top and bottom wings can then be cemented together. I had to do some fettling on the engine intake and wheel wells to ensure they came together with no gaps, and before finally cementing the wing halves together I noticed the wing trailing edge was quite thick and sanded this area down to gain an acceptable thinner edge. This affected the join along the leading edge and some gap filler had to be used in places.

To complete the main wing assembly I worked on the rear engine cowling (parts B10 and B3) and I got another surprise as the diameter of the rear cowling was less than the cowling on the wings they fitted to. There was a noticeable step down to the rear cowling. As the plastic around the wing cowlings was quite thick, I filed this down to eliminate the step into a smooth flush fit. The rear cowlings do look a bit narrower than they should, but not unacceptably so. By contrast the engine intake fronts (parts B9) were a good fit.

Fitting the wings to the fuselage is a butt fit and again care is needed to get the correct wing angle, position and level. Checking against drawings and photographs helps with this. I used the graph markings on my large cutting mat to help with the final alignment. Some gap filler was needed along all the joints, but I was happy that I had the wing in the correct position, with the engine front to back alignment in the right place compared to the fuselage. With the fuselage together and the wings attached, fitting the tailplanes was an easy task. A bit of sanding was needed to smooth the join area but the fit was good and the wings could be used to assist with horizontal alignment.

I allowed good time for the glues and fillers to set and then did any sanding, re scribing and smoothing necessary to obtain a good surface for painting. I marked out the position of the main undercarriage on the underside of the wings and balanced the model on a length of rod at that point. This showed it still tail heavy so I added a little more shot to the nose. When this had set I then completed work on the cockpits.

The kit canopies were cut off their sprue, sanded smooth where needed and then cleaned. They were then coated in Klear and fastened in place over the cockpits using Rocket Cyano Odourless glue. This is the Green Label bottle, described as ideal for canopies. The canopies were then masked ready for the painting stage and were coated with the cockpit interior colour first. I noticed later that the T7 canopy is not quite correct as the split side window on the rear cockpit seems to be on the left side only and not both sides as depicted on the kit part.

Painting and Detailing the Meteor T7

For the Meteor T7 acceptance ceremony, both aircraft were painted overall High Speed Silver and sported the Israeli Magen David (Shield of David) national insignia. The aircraft were cleaned and polished and at this time the danger warning markings had not been applied to the nose cone or the engine intake rims.

I prepared for painting by spraying the aircraft with Halfords Grey Primer, which highlights any areas needing further attention and provides a good surface for the final colour. The model was then airbrushed with coats of silver until a nice coverage was obtained. The undercarriage bays were painted aluminium (Humbrol 56). An overall coating of Klear gave a polished surface appearance and gave a good base for the decals.

I only used the kit supplied decals that were appropriate to the model. Unfortunately I found them difficult to use as they folded into themselves and broke very easily. For the

walkway lines I had to take decals from another kit to replace those that were unusable. For the IAF Meteor T7 the main decals came from the excellent Isradecal Sheet IAF-63 *Middle East Meteors*. This contained all the markings needed for my model of Meteor 13 as depicted in 1953. I used Klear as a setting solution.

Painting and Detailing the Meteor F8

July 1953 saw the arrival of the first Meteor F8s into Israel, with the final aircraft touching down at Ramat David Air Base on 21st August 1953. At that time the F8s were in natural metal but had some panels and engine intakes painted High Speed Silver. They also had the early style canopy with the metal fairing on the rear. They were each given a serial number from 01 to 11.

In the late 1950s the Meteor F8s were all to receive the later all clear canopy and the aircraft adopted the standard IAF colours and markings of the day, dark blue and brown camouflage pattern upper surfaces, with light grey undersides. The area around the gun ports on the nose was painted black and the black and white warning markings around the engine intakes and on the nose were retained. Although the colours were to Israeli specification they were matched to Blue RAL7008 and Brown RAL8025 for the upper surfaces and RAL7035 for the grey undersides. Taking advice from Israeli modellers Blue RAL 5008 is available as Revell 351, but for the brown Humbrol 29 Earth lightened with a drop of white is close enough. For the grey Humbrol 166 Light Aircraft Grey is also recommended.

When originally applied to the aircraft the paints had a hard edge and were glossy in appearance, however as renovation took place over time soft edges were evident and the gloss soon wore off. Whereas the Israeli NF13s were delivered in the standard RAF Meteor camouflage pattern the IAF produced their own camouflage pattern for the Meteors they painted.

In 1963 the IAF decided to introduce the yellow trainer markings applied to the wings and fuselages of the Training School's NA T6 Harvards to their other training aircraft. The newly acquired Fouga Magisters were painted in the standard blue/brown scheme, with yellow fuselage nose, tail and wing tips. Photos have recently come to light showing that the Meteors of the Advanced Training Squadron were also painted with the yellow training markings and I decided to do my Meteor F8 as Meteor 06 in these colours and markings. Possibly the first ever model of a Meteor in this scheme.

As I was going to be using yellow paint, for this model I used Halfords White Primer to give a better base for the colour. After checking over the model and ensuring everything was alright, I masked off the areas to be yellow and airbrushed on the underside grey, followed by the brown and blue on the upper surfaces. I then did a reverse masking, exposing those areas to be yellow, and sprayed these with Trainer Yellow.

When doing the masking I noticed that there did not seem a standard application of the yellow markings and all the Meteor F8s differed in one way or another. Meteor 06 looked good to me and was clearer on the photograph I had so became my choice. Again my main decals came from Isradecal Sheet IAF-63. However for the common stencils and walkway lines, having used these decals to replace those unusable on the T7, I had to resort to using decals from a Matchbox kit I had in my spares box. These were good and gave no trouble in their application.

The Advanced Training Squadron also applied their own tail markings of a red arrowhead on a white background on the tail of the Meteors. I copied these markings just using red and white decal sheet cut to size. All the decals were then sealed in a coating of Klear.

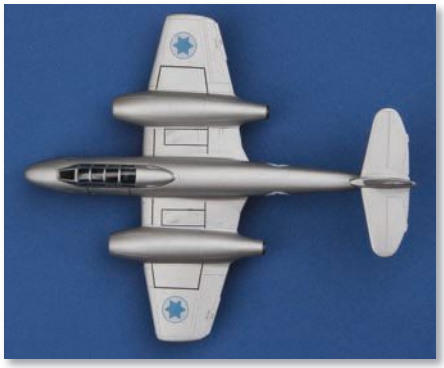
As hostilities increased in the 1960s the Meteors were needed for operational service and again like the Fouga Magisters, the yellow areas were removed and the aircraft re camouflaged. To give warning of their training status, day-glow orange tape stripes were applied to the nose, tail and wing tips. These were simply peeled off if the aircraft were to be used on operations.

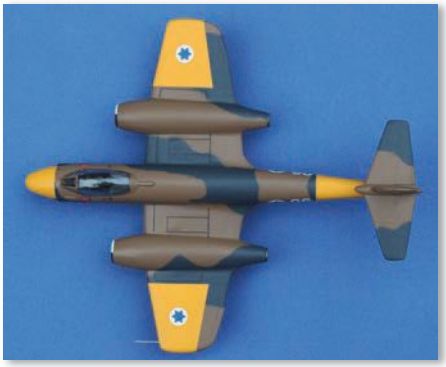
Undercarriage and Final Completion

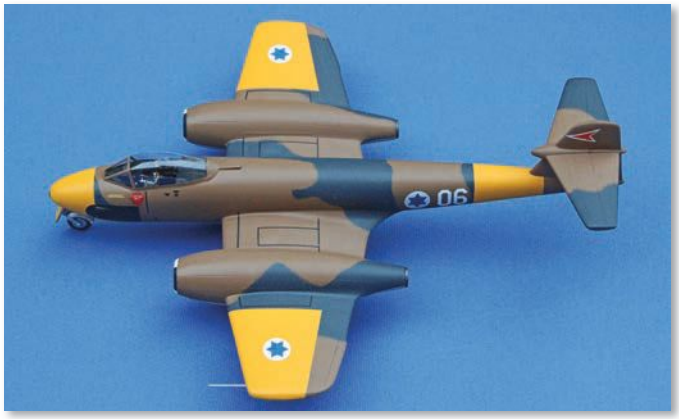
The MPM produced Meteor kits have six parts to each undercarriage leg but instructions as to how they fit together are unclear. First the main wheels are separated left and right side and need to be joined together. However in both kits I had, one side was slightly larger than the other. I drilled a centre hole in each and brought the sides together on a wire axle and carefully glued them together before filing around the circumference to obtain an even size and shape. The completed wheel is fitted into a wheel fork (part B16) to which a mudguard (part B11) is then attached. This assembly is then attached to the main oleo leg (part B20). These parts also need to be painted before assembly. There are no location aids or scale drawings to assist with the correct positioning of the forks to the undercarriage legs and in my case I attached them to where they appear to be attached, but when finally fitted into the wheel wells they were too short in height and the model did not have the ground clearance it should have. By comparing these legs with the undercarriage legs in a Matchbox kit and carefully cutting them apart, I was able to rebuild them to a more realistic looking size. I was fortunate in having a set of Matchbox undercarriage legs in my spares box; I had used the even better Aeroclub White Metal legs on a previous model. To my mind the MPM Meteor undercarriage is quite complicated in 1/72, particularly with short run produced parts and the lack of detailed fit instructions. The Matchbox and Aeroclub one piece undercarriage legs are perfectly accurate and adequate for the scale.

The nose undercarriage has four parts and again getting the angle of the fork is key to obtaining a level and acceptable ground clearance. There is a small side view drawing to help with this, but again trial and error seems to be the best means of getting it right.

These kits can be built to produce some good looking models, but they are definitely for the more experienced modeller. They are particularly challenging in some areas, but perseverance will bring enjoyment and a successful outcome. It is good to have these kits of an interesting subject like the Gloster Meteor.



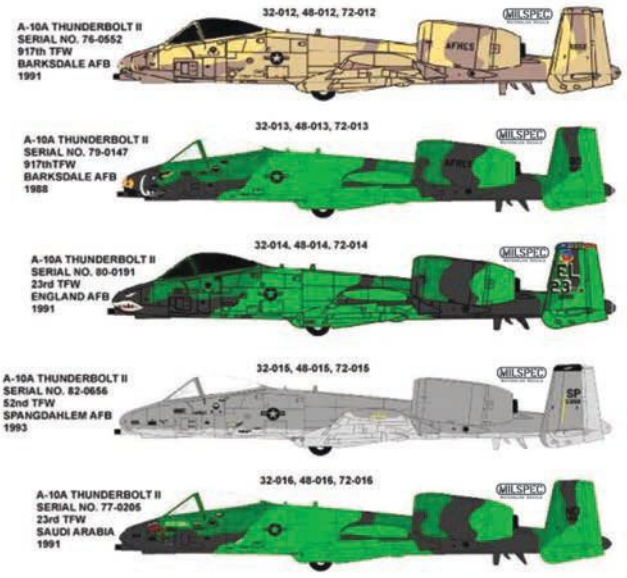




MILSPEC

WATERSLIDE DECALS

A SMALL SAMPLE OF WHAT'S COMING IN 2016



1/32nd Scale • 1/48th Scale • 1/72nd Scale Quality Decals

WWW.CAMDECALS.COM

HOBBYSHOP.CZ

Your wife will be mad...

Czech this out!
The best value model kits and accessories

Visit our shop on
www.hobbyshop.cz
and use your discount code
SAMNOV5 for 5% sale

ROBERTS MODEL

A/C parts in 5 popular scales.

COMBAT MODELS

VACUFORMED MODELS

Unique models for the enthusiast:
1/72: C-74, C-131, 1/24 F4, Ki-61
1/48: C-54, C-121, C-131, C-119, Emily
1/32: A-26, B-26, A-20, B-57, V-22, Fw-189

web: combatmodels.us email rmcombat@ptd.net
Roberts Model Lists $1.00
83 S. Pine St. Hazleton, PA 18201 USA

modelsforsale.com

Plastic model kits, New, Second-Hand, and Discontinued. Books and Accessories.

WANTED

Quality collections of second-hand model kits, military books, decals, photo-etch & detail sets. Will collect on larger quantites.

Please see our website for more details or please call us.

Tel:01933 622654
email: sales@modelsforsale.com
Unit 3 Dean Close - Raunds - Northants NN9 6BD

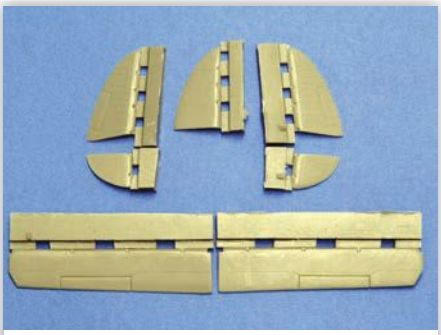
WARNING STAR

Plus Models Heller Upgrade

By **Keith Peckover**

The missing windows, the two larger of the three visible

The extended radome blended into the fuselage with Milliput. The filled window is immediately aft of the flight deck glazing



The tail surfaces set comprising replacement resin rudders and elevators

Kit No: AL7010

Scale: 1/72

Type: Injection Moulded Plastic

Manufacturer: Plus Model
Hannants/UMM-USA

The Lockheed Constellation, especially in its stretched super Connie form, was arguably the most aesthetically appealing of the propliners. Somehow the addition of two enormous radomes on the military R/EC-121 radar surveillance versions named Warning Star did not seem to disguise the underlying elegance and arguably may have even added character.

For many years Warning Stars stood watch over areas of the Pacific and Atlantic Oceans and the Caribbean Sea, i.e. Cuba, but it is probably most remembered for tasks undertaken in South East Asia (SEA) during the Vietnam War. Although these went under a number of code names those most associated with the type were Big Eye and College Eye, the surveillance of North Vietnam in support of air strikes by the United States on that country. On 10th July 1965 this operation had its first success. To paraphrase the subsequent report, 'two non squawking unknowns were detected and tracked in the Hanoi area. Based on these detections, two MiG warnings were issued to Strike and CAP aircraft. F-4C Phantoms performing MiG CAP reported receipt of these warnings and subsequently shot down two MiG-17s.' By the end of the conflict EC-121s had assisted in the shooting down of twenty five MiGs, supported the rescue of eighty aircrew, and flown 13,921 combat sorties totalling some 98,000 flying hours.

Some years ago at what was then called the IPMS Nationals the temptation to purchase Heller's kit of the type was resisted, a rare example of Compulsive Kit Buying Syndrome (CKBS) being conquered. However in September 2014 when learning of its release in an enhanced form by Plus Model this time resistance was useless and an order was promptly placed with the Czech company. The kit is founded on the original Heller product upgraded by the addition of a resin engine set, effectively replacement engine nacelles, made by Plus Model and new decals. Other sets by this company are also available, three of which were used. A fourth consisting of a large etched brass sheet for the interior is available but does not feature here. A look at the size of the flight deck windows should give the reader a clue why - life is too short for such an activity.

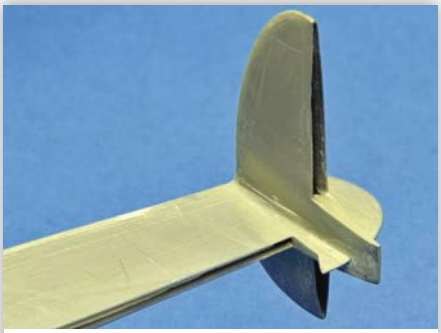
Four marking options are provided, two each for the US Air Force and US Navy. For both services they fall into what can be termed a simple plain example and a more distinctive but complicated one.

What's in the Box?

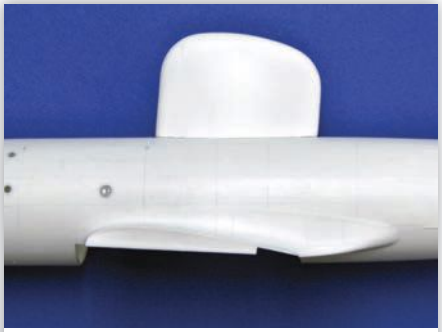
The kit comprises two distinct sets of plastic parts. There is a group moulded in silver comprising wings, tail surfaces, propellers and undercarriage that are common to both the Constellation airliner and Warning Star. Moulded in white are components specific to the Warning Star covering fuselage, outer wing underside panels, tip tanks and radomes. A cursory examination shows the kit's antiquity, the raised panel lines being particularly noticeable especially those defining the leading edge de-icing cuffs which could more correctly be called ridges. The kit goes together quite well so the build is not described below, rather the emphasis is on what the reader will hopefully consider to be the more interesting aspects, the resin sets and corrections needed.

To Work…

And there was a lot more of it than expected. The first task was to scribe new panel lines, about the worse chore in this hobby. It is a peculiarity of silver coloured plastic that even when the raised lines are sanded away a line remains visible within the material, something that at times can be useful but at others



The inner surfaces of the fins and tailplanes sanded down to sharp edges enabling fitting of rudders and elevators



The height finder radome from the box with its distinct rearwards tilt

The radome was modified by building it up with Plasticard and Milliput

The fitted radome. Pleasingly it was found that the distance between its widest point and a panel line running along the fuselage matched that seen on photos suggesting that its width is correct

The belly radome located as it should be with its tapering sides positioned overlapping the inboard end of the flap recesses. As a result its forward most point does not align with the wing leading edge

The intakes and a vent adjacent to the radome, one of the former requiring the fitting of a piece of brass tube. The Milliput used to fill gaps at the forward edge of the radome can be seen

The slot cut into the radome. The wire fitted to support the resin flaps may be seen

The incorrect wing root fairing. The pencil line beneath the fuselage is at the aftermost point of the belly radome

The wing root fairing looking as it should. The slot for the flaps can be seen as can the small vent pipe added using Albion Alloys tube, there being two such vents on the port side

somewhat confusing.

The rear fuselage is missing two windows, something easily corrected with drill and after painting Glue 'n' Glaze. Another of the white components is the nose radome. It was a poor fit and had to be shimmed with Plasticard to adopt the correct angle and blended in with Milliput. Also in this area was a window aperture just aft of the flight deck that needed to be filled. Lead ballast was added just aft of the flight deck, it being judged that a more than adequate quantity was used. However when the model was eventually placed upon its undercarriage it was disconcerting to find that it is only just nose heavy. The aerials moulded on the kit parts were removed because they were to be replaced by the etched brass replacements provided in the kit.

To fit the Tail Surfaces set (AL7008) areas on the inner faces of the fins and tailplanes have to be sanded down. It was found necessary to trim the trailing edges of the new parts to bring their profile in line with the fixed surfaces. That was the easy part done.

Now for the Real Work

To state the obvious it is the radomes that make the Warning Star stand out from other versions of the C-121. Accordingly it is important that they are correct but built from the box this is not so. The dorsal radome, which contained the height finding radar, had a distinct backwards stance not evident in photographs of the real thing and more significantly it was too slim. The excellent drawings covering painting and markings show the radome having a greater width than the kit part with further checks against photos and other drawings confirming this. Fortunately length and height were correct. It was established that it should be 20mm wide and was modified accordingly. To produce a curved mating face on its under surface matching the fuselage diameter a piece of 600 grit abrasive paper was wrapped around a metal talcum powder can and the base sanded down. To find a metal can of the same diameter was a real stroke of luck turning a potentially difficult job into an easy task.

A check of the belly mounted search radar radome showed that it was too short. Its forward face should be in line with the wing leading edge but it was some 11mm undersize. It was cut in two at the widest point, spaced apart to the required length and strips of Plasticard glued to the inner face to bridge the gap. The exterior was then built up with Milliput. As a result of being moved forward the contours of the front section where it met the wing and fuselage no longer matched, requiring the use of filler. Whilst in this area there was also work to be done to represent intakes and vents.

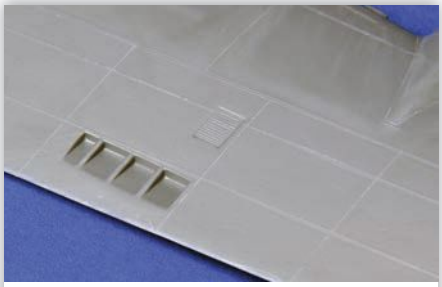
There are, for want of a better term, vanes fitted at the inboard ends of the flaps. At first it was assumed that these corrected an airflow interaction problem between flaps and radome. However noting that the flanks of the radome cut across the inboard end of the flaps these vanes it is believed simply covered an opening into which the Fowler type flaps passed when retracted. A slot of assumed dimensions was accordingly cut into the radome. The rearmost areas of the wing root fairings are incorrectly shaped. They extend too far aft and should align with the aft edge of the belly radome. They were scraped and sanded down until the correct shape was achieved.

Wings & Flaps

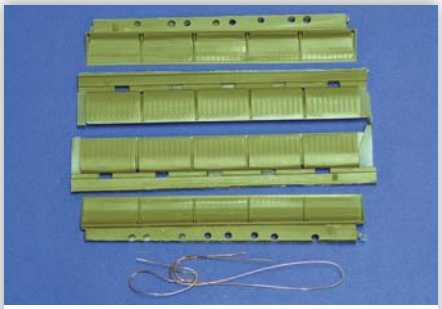
The configuration of air condition plant outlet vents on the upper surfaces of the wings is applicable to the Constellation and not that of the Super Constellation/Warning Star. It is necessary to fill areas on both wings and form new outlets. Missing from beneath the outer wings are recesses for the landing lights, which is surprising given that they are present on the silver moulded parts. Holes were drilled and lenses from little-cars fitted.

Fitting the Flap Set (AL7007) was the most challenging aspect of this build. The flaps have to be handled with great care being easily broken at the grooves, as experience was to show leading to the purchase of a replacement set. Furthermore the vanes at the inboard end are extremely fragile.

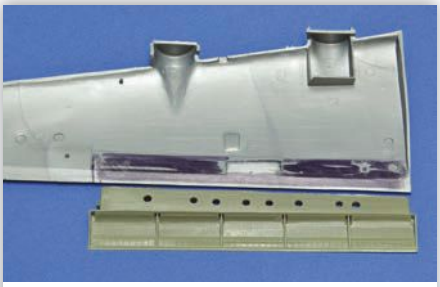
As a first step the existing flaps were cut away from the wing underside components. To be able to fit the parts forming the roof of the flap cavity an area on the wing upper side component was filed down and the protrusion where the above mentioned air con outlet was formed removed. The mating



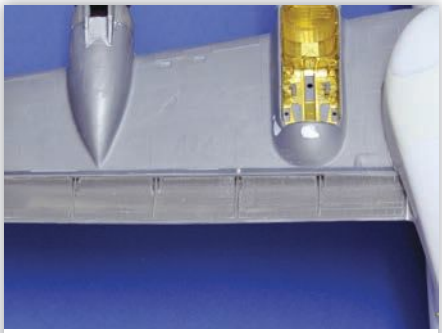
The air conditioning plant outlets on the starboard wing which are not applicable to the Super Connie/Warning Star. There was only a single outlet on the port wing needing attention



The flaps set. The flaps are the two parts in the middle. The top and bottom components are the interior face of the flap cavity to be fitted on the wing under surfaces



The underside of an upper wing with region to be sanded down shaded. The air con vent projection (not shaded) also has to be removed. The flap cavity roof component is shown below it with casting riser still attached



The fitted flap cavity roof. The wire used to support the outboard end of the flap has been fitted

The resin engine nacelle set that come with the basic kit. The small part on the right is an antenna applicable to US Navy aircraft only

The outlet at the end of the carburettor intake duct and exhaust stubs. The later were fitted with the cowling gills temporarily secured in place

face of the roof component also had to be scraped down, this being done until it was felt that to go any further would risk damaging its exterior face. Test fits showed that to an extent it stood proud of the wing surface and that when aligned with the wing's trailing edges there was a gap at the forward edge. The flaps had been cut away using their outlines as a guide. In retrospect it may have been better to have cut them away short of full chord with adjustments made when fitting the roof components. After they had been superglued in place the gaps were filled and the new components blended in with the wing surface.

If Plus Model's instructions were interpreted correctly the flaps are to be held in place by supergluing them to tiny pieces of etched brass representing the actuating mechanism. Respect to anybody that achieves this but to do so would result in a weak installation. A more secure mounting arrangement was incorporated, albeit one sacrificing some accuracy. The flaps were supported on stainless steel wires which were bent to set them at the required angle, the wires being secured with superglue into holes drilled at each end of the flaps and roof parts.

Attention then turned to fitting the etched brass pieces representing the actuating mechanism/hinges, and in the final stages of work pieces of wire, presumably meant to be screw jacks, and other tiny brass parts. Instead of using the wire provided lengths of Albion Alloy aluminium wire were used, there being no need to straighten it as would have been necessary with that in the kit.

Engines

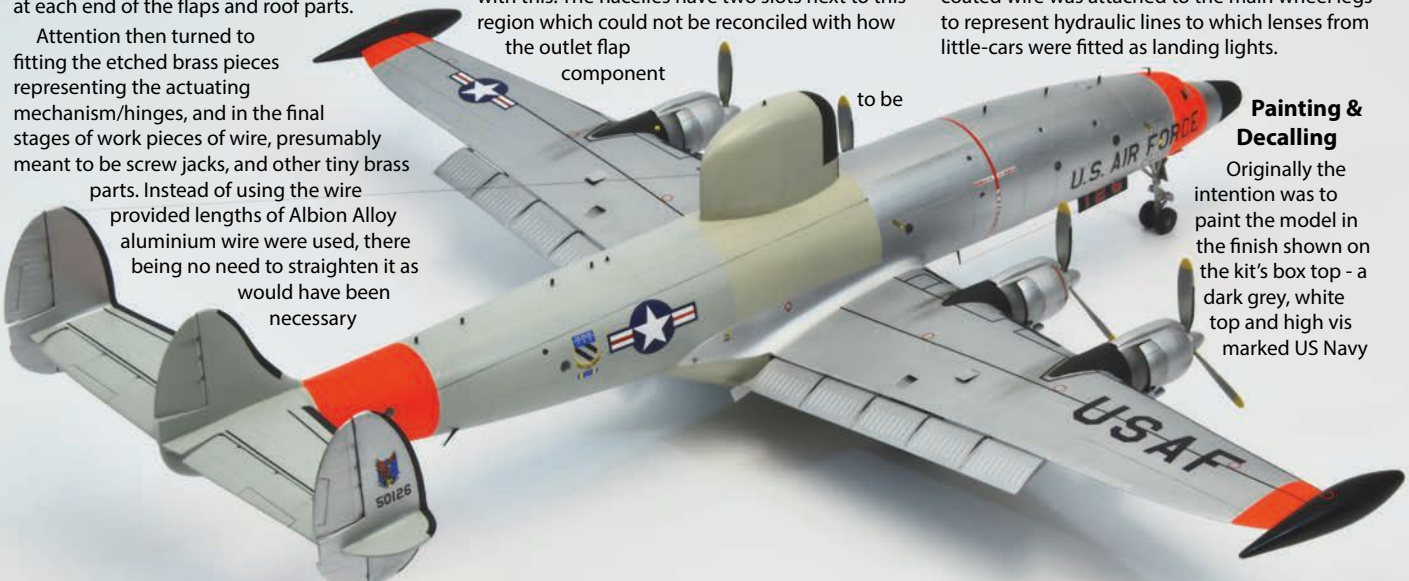
The kit engine component is used and is satisfactory, especially given how deeply it sits within the nacelle. If following the instructions the propeller shaft would have to be glued in place before fitting nacelles to wings and the propeller later fixed to it or just slid into position without retention. Preferring to be able to secure the props but still able rotate them the shafts were inserted and a piece of plastic card glued in place within the nacelles so that they were captive but still free to turn. It should be noted that the propeller blades are vulnerable to damage, being easily bent about the root. Guess how that was discovered.

When fitting the nacelles care should be taken to locate them so that an air outlet at the aft end of the carburettor air duct is apparent, a little thinning of the material in this area being worthwhile before fitting. The shape of the oil cooler outlet area does not match that seen in walkaround photos but it was decided to live with this. The nacelles have two slots next to this region which could not be reconciled with how the outlet flap component to be fitted there could be used, so a single slot was formed that matched the width of the flap.

In comparison with the original kit parts, which are still provided, the new nacelles are far superior, having the correct number of exhaust pipes (three and not four), separate cooling gills and realistic air intakes.

Undercarriage

The Wheel Bay set (AL7006) has a large etched brass sheet most of which provides parts to enhance the main undercarriage bays. As well as many detailed pieces a complete lining for the interior is provided. There is also a group of resin parts, including replacement main wheels that are significantly better than the original, and a nose gear undercarriage bay. The nose gear leg lacks meaningful locating pins and as a consequence is somewhat vulnerable to being dislodged. The nose wheels on Connies were mounted at a distinct camber angle but the tyres should be much closer together than seen here. The axles should have been shortened, an error only realised when it was too late. Plastic coated wire was attached to the main wheel legs to represent hydraulic lines to which lenses from little-cars were fitted as landing lights.



Painting & Decalling

Originally the intention was to paint the model in the finish shown on the kit's box top - a dark grey, white top and high vis marked US Navy

MODEL KITS FROM AROUND THE WORLD

POCKETBOND DISTRIBUTION

AVAILABLE IN ALL GOOD MODEL SHOPS

F-16 CG/CJ Fighting Falcon
AY12123

NEW

ROKAF F-4D "151st FS
AY12310

NEW

B-29A "Enola Gay" & "Bockscar"
AY12528

NEW

P-47D & F-86E "Gabreski"
AY12530

NEW

(built & painted)

UH-1 Huey B 501st Aviation Battalion "Firebirds" MM60029

COMING SOON

Grumman J2F-5 Duck (kit)
MM64805

COMING SOON

Dornier Do 335 A Fighter Bomber
HK01E08

NEW

R.A.F. S.E.5a (kit)
MM62402

NEW

US T-38C Talon (NASA)
TM02878

NEW

de Havilland Hornet F.3
TM02894

NEW

Su-11 Fishpot
TM02898

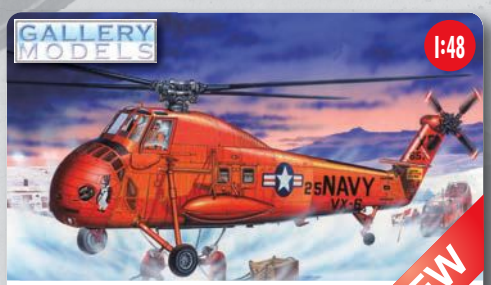
NEW

Mig-23BN Flogger H
TM05801

NEW

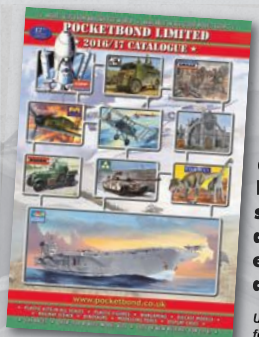
VH-34D 'Marine One'
GM64105

NEW



UH-34D Seahorse
GM64106

NEW

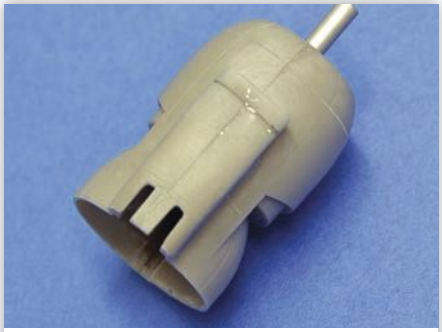


The new Pocketbond 2016/17 144 page colour catalogue is packed with pictures of more than 2,500 plastic kits from around the world! For your free copy send a £1.51 stamped addressed A4 envelope to the address below.

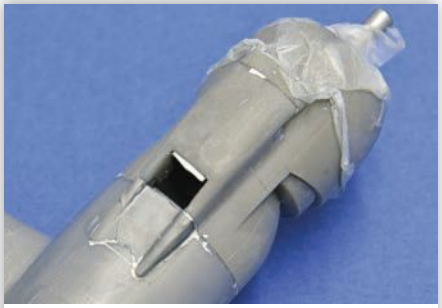
UK residents only. Allow 28 days for delivery.

Exclusive UK Distributors* POCKETBOND LTD *(Dept SAM/1602)

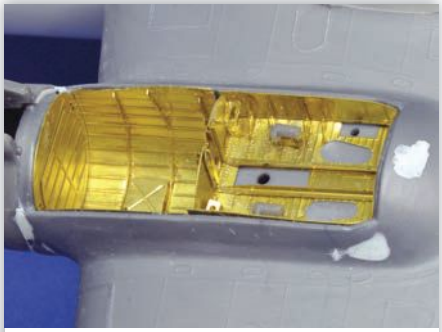
P.O. BOX 80, WELWYN, HERTS, AL6 0ND. Trade enquiries only on tel 01707 391509, fax 01707 327466, info@pocketbond.co.uk, www.pocketbond.co.uk



The underside of the nacelle showing the two mysterious slots at the oil cooler outlet



The fitted nacelle with slot opened out. The small piece of plastic card visible at the forward end served as a mounting ledge for the outlet flap, another of the resin parts in this set



The etched brass parts fitted in a main wheel bay. Milliput was used to fill sink holes at the aft end of the nacelles

Wheel Bays set with resin parts for the doors, wheels and nose gear bay. Not shown here is the large etched brass set for the main wheel bays which includes nose gear bay doors

The kit and resin replacement wheels compared

The model before finally spraying with primer. This shows the white Warning Star specific parts of the kit

example. However attention finally focused on the more complicated of the USAF options, an RC-121D of the 551 AEW&CS as it appeared in December 1962. To be exact by that time it was an EC-121D following the introduction of the tri service designation system in September of that year.

After spraying with Humbrol primer and addressing a few areas requiring treatment it was sprayed with Future. Work then progressed in stages commencing with the tail surfaces and rear fuselage in Xtracolor X138 Air Defence Command Grey, nose and engine nacelles, the latter in Tamiya XF-16 Flat Aluminium. The forward half of the fuselage was then painted with Testors Non-buffing metalizer with the upper part in Humbrol Gloss Aluminium Metalcote. The Light Gull Grey (Xtracolor X137) around the centre section and on the radomes followed. The wings were then sprayed with Mr Metal Color 218 Aluminium and the root fairings with Humbrol Matt Aluminium Metalcote. The last major spraying jobs were the tip tanks and black portions of the radomes and engine nacelles. Xtracolor X253 *Leuchtorange* applied over a matt white undercoat was used for the high vis markings.

Two coats of Alclad Clear Kote Gloss were applied before decalling. It should be noted that the decals need to be immersed in water for just a few seconds before they can be slid from the backing paper. Unfortunately the red band on the national markings, as with so many kits, is too light. These were overlaid with strips of decal film sprayed Insignia Red. With decaling complete the model was sprayed with Alclad Light Sheen Kote.

The Final Stretch

The last task before painting had been to drill a series of small holes for the various aerials scattered around the fuselage. After flaps, undercarriage and doors had been fixed in place the numerous aerials were then fitted to the fuselage. After this fitting the windscreen wipers and rigging the four wire aerials using EZ Line brought work to an end. The final result is a model with so many vulnerable areas that handling it calls for great care.

Conclusions

The original kit is significantly improved thanks to the nacelle kit. The benefit of the other kits is in the eye of the beholder but whatever the opinions on the available parts it is inescapable that accurate replacement radomes are needed. Although it cannot be claimed that the modified radomes are true replicas they are a significant improvement, looking much closer to the real thing. It was good to see this kit make a comeback. The model's distinctive appearance enhances any display, especially one covering the air war in SEA.

I would like to take this opportunity to thank Plus Model for their assistance and generosity when postal system efficiency was not at its best after the replacement flap set had been ordered.

References

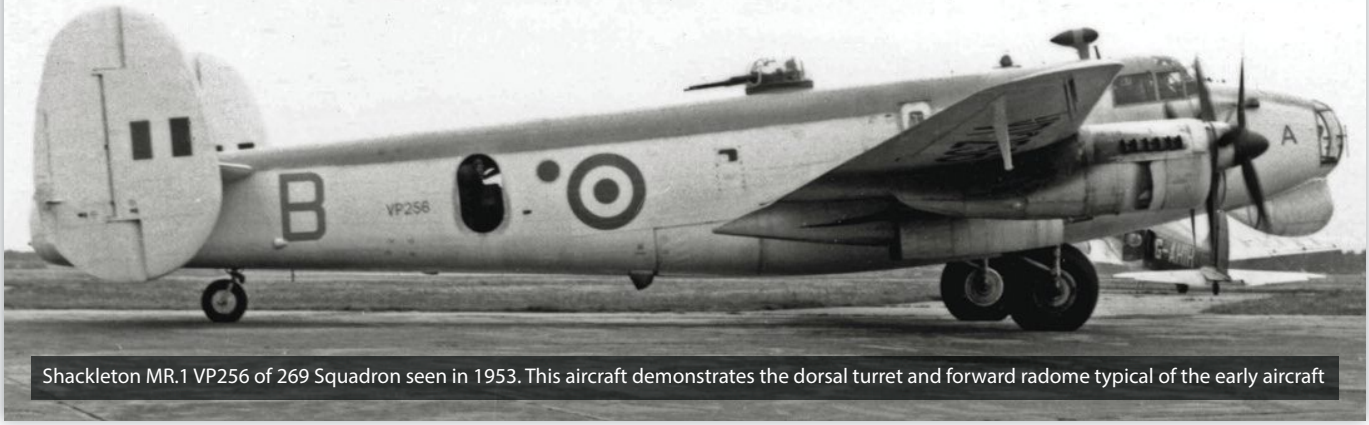
The Lockheed Constellation - David & Charles
World Electronic Warfare Aircraft - Jane's Publishing Co Ltd
Air Enthusiast No 14 - A Fine Scroll Publication
Lockheed Aircraft since 1913 – Putnam

Aircraft in Profile ISSUE 11

Triumph of Endeavour

By **Richard Mason**

Avro Shackleton – the Lancaster's Legacy



Shackleton MR.1 VP256 of 269 Squadron seen in 1953. This aircraft demonstrates the dorsal turret and forward radome typical of the early aircraft

Looking at the speed and extent of military technological development throughout the long decades of the Cold War it is perhaps remarkable that an aircraft like the Shackleton was able to survive for so long. Whether its longevity can be regarded as a testament to its utility or to its economy however is a moot point but it seems to have performed its functions adequately, if unremarkably, right up until the 1990s and with no less than two brand new kits of the aircraft appearing simultaneously from mainstream manufacturers a re examination of its anomalous career does not seem out of place.

The Shackleton was developed by Avro from the Lincoln bomber, itself a development of the famous wartime Lancaster. It served as a maritime patrol platform until replaced by the Nimrod in the early1970s but was further adapted for the AEW role. Remarkably it performed this role right up until 1990 when the RAF acquired the E-3 Sentry as a long overdue replacement.

Production and Development

The Cold War was fought by many services with one eye looking back at the experiences of World War II. A European confrontation supported by the USA was a familiar concept and the wide gulf of the Atlantic and the danger it represented a proven reality. RAF Coastal Command had eventually closed the gap but with the cessation of hostilities and the return of lend-lease equipment a number of Lancasters underwent conversion as MR.3s to take on the Maritime Reconnaissance role alongside the Sunderlands that were now becoming obsolete. This however was only a stop gap and in answer to Air Ministry specification R.5/46 Avro, who had continued with their development of the Lincoln, eventually produced the Type 696

The Type 696 was a significant development upon the Lincoln and incorporated elements of the Avro Tudor airliner in its design. The new aircraft was to be capable of a 3,000 nautical mile range while carrying up to 6,000lb of weapons and equipment and in addition to featuring a large amount of electronic gear offered better conditions for the crew; a significant consideration given the length of the missions flown.

Initially considered as the Lincoln ASR.3, by the time it made its first test flight the prototype had become the Shackleton GR.1, but was later re designated Maritime Reconnaissance Mark I (MR.1). The aircraft made a first flight on 9th March 1949 from the manufacturer's airfield at Woodford but differed from subsequent production airframes considerably, having a number of turrets and being equipped for air-to-air refuelling. The performance was sufficient not only to ensure the go ahead for the MR.1 but a specification was issued for an improved variant, the MR.2, even before the first production aircraft had flown.

With the MR.1 now relegated to an interim machine, the MR.2 was quickly established as the mainstream version of the Shackleton. The radar was upgraded to ASV Mk 13 and the radome relocated from the aircraft's nose to a ventral position aft of the bomb bay. This was retractable and could only be fully extended with the bomb bay doors

This Shackleton MR.2 WG557 of 220 Squadron represents the aircraft in its most familiar form with the lengthened nose and prominent observer's position

Shackleton AEW.2 of 8 Squadron at RAF Lossiemouth in the 1980s. This is the definitive version of the aircraft and given its longevity the variant many readers will remember seeing in flight (Mike Freer)

Shackleton AEW.2 of 8 Squadron in June 1982 during exercise Coronet Cactus at RAF Leeming. 8 Squadron was based at RAF Lossiemouth from 1973 to 1991

Shackleton MR.2 WL801/01 of 8 Squadron at RAF Abingdon in 1978 (Mike Freer)

A SAAF Shackleton seen on patrol in 1982

The Shackleton MR.3 was decommissioned by the South African Air Force in 1984 after some twenty six years of service

open. The nose and tail sections were lengthened, the tailplane was redesigned, the undercarriage was strengthened and twin retractable tail wheels were fitted. The dorsal turret was initially retained but was later removed from all aircraft after delivery.

The rapid pace of submarine development ensured a constantly changing threat and the MR.2 saw a number of changes and upgrades introducing improved radar, weapons and other systems, as well as structural work to increase fatigue life. A clear requirement for aircrew training had seen the delivery of ten initial aircraft as T.Mk 4s, but in 1967 ten MR.2s were modified as training aircraft. Designated T.2s the crew rest areas were replaced by additional radar equipment and the original radar fittings removed.

With production of the MR.2 ending in May 1954 the MR.3 introduced a major change in the form of a tricycle undercarriage, while the fuselage dimensions were increased and new wings incorporated. The weapons capability was upgraded to include homing torpedoes and further improvements made to crew facilities. Soundproofing was improved and a proper galley and sleeping space were included. This of course increased the overall take off weight so JATO assistance was required with Armstrong Siddeley Viper Mk 203 turbojets employed. This increased strain on the airframes dramatically and as a result the MR.2s survived longer in service.

The MR.4 was a projected variant intended to meet a Canadian requirement, sharing only the nose, cockpit, and outer wings with earlier variants but was cancelled in 1955.

Shackletons in Service

Various armaments and equipment were carried by the Shackleton in order to perform its missions. In ASW operations the ASV Mk 13 radar was the primary detection tool but other equipment included droppable sonobuoys, electronic warfare support measures, an Autolycus diesel fume detection system and an magnetic anomaly detector (MAD) system. A special camera bay housed several reconnaissance cameras capable of medium altitude and night time vertical photography, and low altitude oblique photography. The crew would also perform visual searches using various lookout positions that were provided for this purpose. Weapons carried included up to nine bombs, and three homing torpedoes or depth charges.

The aircraft was not without its issues. The diesel fume detection system was prone to false alarms and received little operational use while the engines, hydraulics, and some of the avionics were very unreliable, and the aircraft proved to be fairly maintenance intensive. Several programs to support and extend the fatigue life limits of the airframe were required and this ultimately necessitated the rapid

introduction of the Nimrod, which began to replace the Shackleton from1969.

The first Shackletons were delivered to 120 Squadron and by the end of 1952 seven squadrons were operating the type. The first operational deployment occurred in 1955, albeit as a troop transport for British Army movements to Cyprus, but less than a year later the aircraft saw further combat deployment during the Suez Crisis.

In the Maritime Reconnaissance role the aircraft were often used to identify and monitor naval and merchant shipping and to demonstrate sovereignty. During the Indonesia–Malaysia confrontation in the 1960sShackletons were employed to search for vessels involved in arms smuggling while similar operations were conducted in Cyprus. Aircraft operating from bases in Madagascar also cooperated with Royal Navy vessels to enforce a United Nation mandated oil blockade of Rhodesia in 1970. All these roles were undertaken alongside the regular antisubmarine patrols and other associated routine duties.

The Shackleton was used to perform search and rescue missions, and a crew was kept on standby somewhere across the UK at all times for this role. The Shackleton had also replaced the Avro Lincoln in the colonial policing mission, with aircraft often stationed in the Aden Protectorate and Oman to carry out various support missions, including convoy escort, supply dropping, photo reconnaissance, communication relaying, and even occasional ground attack missions. Other roles included weather reconnaissance and transport duties with the aircraft able to carry freight panniers in the bomb bay or up to sixteen fully equipped troops.

AEW Shackletons

With the withdrawal of the fleet carriers and subsequent retirement of the Fairey Gannet an Airborne Early Warning replacement was urgently needed, particularly in the North Atlantic. As an interim the existing AN/APS-20 radar was installed in modified Shackleton MR 2s which were then re designated AEW 2 and introduced from 1972. These aircraft were operated by 8 Squadron based at RAF Lossiemouth, and all twelve machines were given names from children's television programmes The Magic Roundabout and The Herbs.

The AEW.2's replacement was to be the ill-fated Nimrod AEW.3, which was itself cancelled due to overwhelming problems with its development. The AEW role was eventually fulfilled by the Boeing E-3 Sentry, which allowed the last Shackletons to be retired in 1991.

Shackleton Abroad

The sole overseas user of the Shackleton was the South African Air Force which took on eight aircraft as a replacement for its Short Sunderland fleet. Modifications were required to adapt the aircraft for local conditions and the first two were delivered to D.F. Malan Airport, Cape Town in August 1957. Aircraft patrolled the sea lanes around the Cape of Good Hope often monitoring Soviet vessels traversing between the Indian and Atlantic oceans.

Due to an embargo imposed by the United Nations over South Africa's policy of apartheid, acquiring components for the Shackleton fleet became increasingly difficult and thus the aircraft's serviceability suffered. By November 1984 the fatigue lives of all but two re sparred aircraft had expired and the fleet was retired into storage.

With some forty years of service in various roles one could be forgiven for assuming the Shackleton was like the Canberra one of those happy instances where a design is so good there is simply no need to replace it. Closer examination suggests rather that it survived in spite of its faults, and seems to have suffered from a problem usually associated with naval aircraft, whereby a single airframe is required to perform a multitude of functions and does none of them quite brilliantly. Had it not been for policy decisions affecting the Royal Navy's AEW fleet the type might not have survived long into the 1970s, but this and subsequent issues over the Nimrod AEW 3 seem to have almost doubled its service life. In the maritime role it seems to have been a constant headache to those responsible for it, and the constant upgrades and redesigns that pepper its history tell their own story.

But its heritage and its charm are undeniable. That something so much akin to the Lancaster was still operational in 1990 could only happen here, and we can be thankful for the opportunities this has given us as modellers to include such an astonishing machine in our collections.

VARIANTS

Shackleton MR.Mk 1
The first production model with dorsal turret – twenty nine built

Shackleton MR.Mk 1A
Powered by four Griffon 57A V12 piston engines - forty seven built and all surviving MR.1s converted

Shackleton T.4
Navigation trainer conversion from MR 1As minus mid upper turret, with additional radar and radio positions for trainees - seventeen converted

Shackleton MR.Mk 2
Longer nose and radome moved to the ventral position. Lookout position in tail. Dorsal turret and two more 20mm cannons in nose. Twin retractable tailwheels

Shackleton T.2
Ten MR 2 aircraft were modified in 1967 as T.2s to replace the T.4s with the Maritime Operational Training Units as radar trainers, with master and slave radar positions for training installed

Shackleton AEW.2
Twelve MR 2s converted as Airborne Early Warning aircraft

GENERAL CHARACTERISTICS

Crew: 10

Length: 87ft 4in

Wingspan: 120ft

Height: 17ft 6in

Maximum speed: 260kn

Range: 1950nmi

Endurance: 14.6 hours

Service ceiling: 20,200ft (6,200m)

ARMAMENT

Guns: 2 × 20 mm Hispano Mark V cannon in the nose

Bombs: 10,000lb (4,536kg) of bombs, torpedoes, mines or conventional or nuclear depth charges such as the Mk 101 Lulu

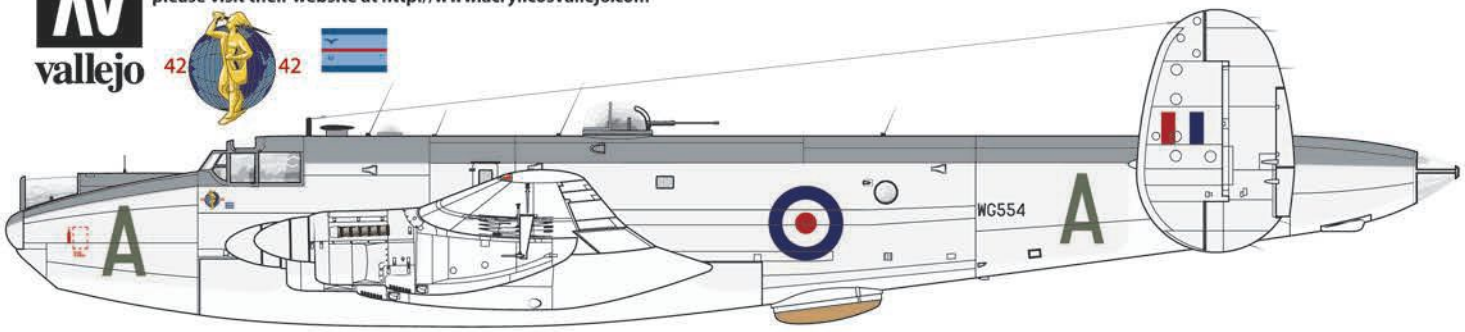
WR970 the prototype Mk.3 was first flown on 2nd September 1955. It was subsequently lost in a crash in the Peak District near Foolow, Derbyshire during operational tests on 7th December 1956. All on board were killed

Shackleton T.4 of the Maritime Operational Training Unit

A Shackleton AEW.2 gets airborne at Newquay in Cornwall (Mike Freer)

The AVRO SHACKLETON MR.2 AND MR.3

For more details on Vallejo's excellent range of colours, please visit their website at http://www.acrylicosvallejo.com

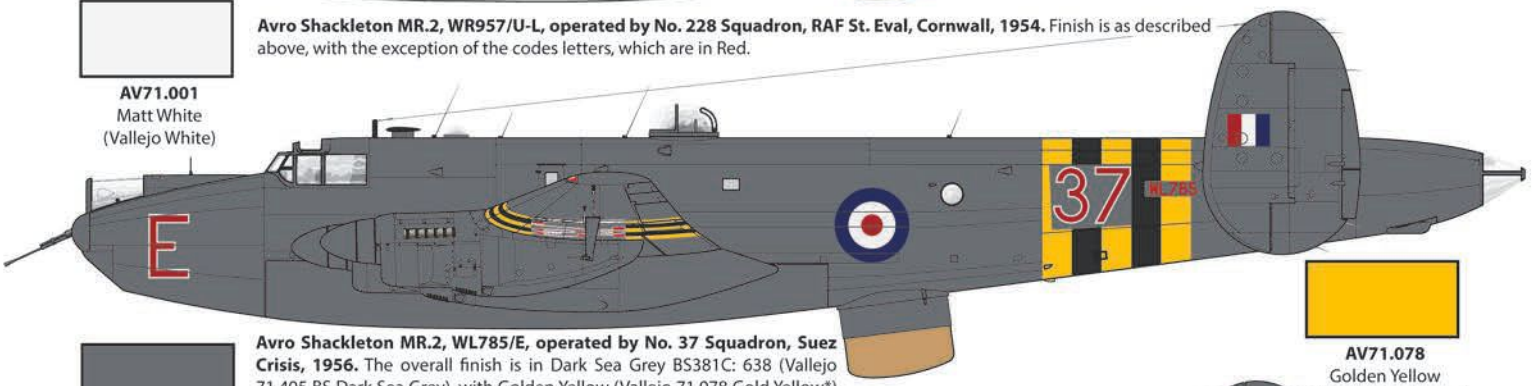


Avro Shackleton MR.2, WG554/A-A, operated by No. 42 Squadron, RAF St. Eval, Cornwall, 1953. Finish is in Matt White (Vallejo 71.001 White) to the fuselage sides, with Gloss White (Vallejo 71.001 White) applied to the fuselage, wing, tailplane and nacelle undersides. The upper surfaces are in Medium Sea Grey BS381C: 637 (Vallejo 71.307 BS Medium Sea Grey). The serials are in Black, with the codes in Light Slate Grey BS381C: 639 (Vallejo 71.406 Light Slate Grey). Note the small 42 Squadron marking and Squadron Leader's pennant below the cockpit.

AV71.307
Medium Sea Grey
(Vallejo BS Medium Sea Grey)

Avro Shackleton MR.2, WR957/U-L, operated by No. 228 Squadron, RAF St. Eval, Cornwall, 1954. Finish is as described above, with the exception of the codes letters, which are in Red.

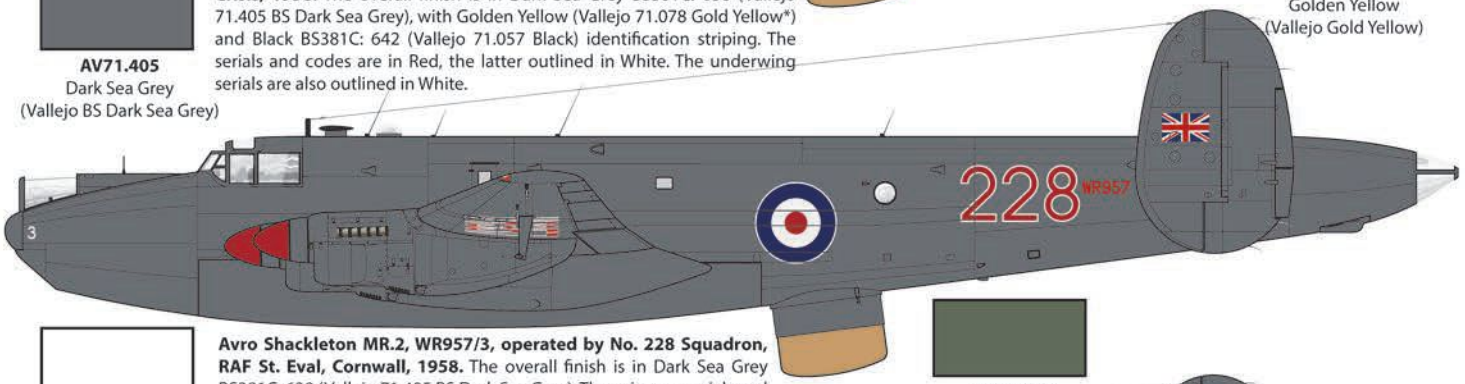
AV71.001
Matt White
(Vallejo White)



Avro Shackleton MR.2, WL785/E, operated by No. 37 Squadron, Suez Crisis, 1956. The overall finish is in Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey), with Golden Yellow (Vallejo 71.078 Gold Yellow*) and Black BS381C: 642 (Vallejo 71.057 Black) identification striping. The serials and codes are in Red, the latter outlined in White. The underwing serials are also outlined in White.

AV71.078
Golden Yellow
(Vallejo Gold Yellow)

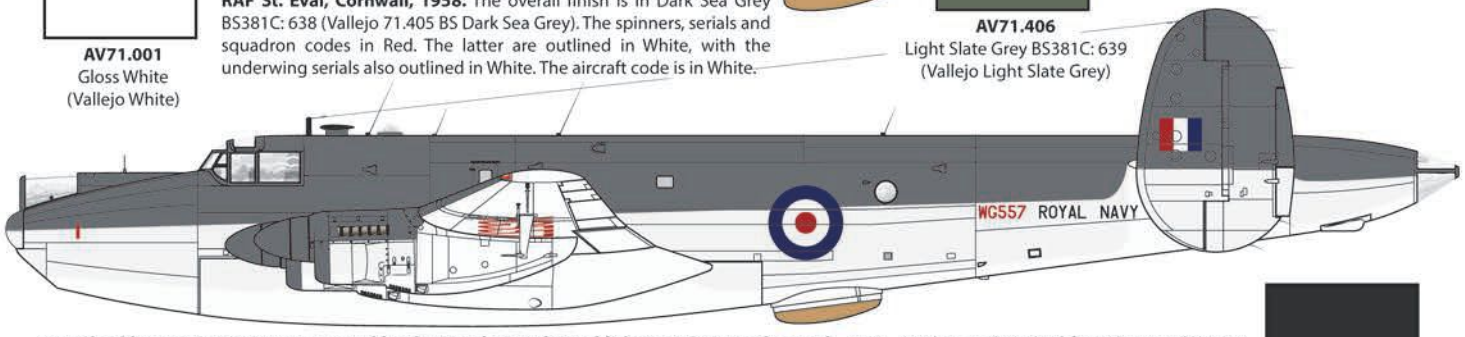
AV71.405
Dark Sea Grey
(Vallejo BS Dark Sea Grey)



Avro Shackleton MR.2, WR957/3, operated by No. 228 Squadron, RAF St. Eval, Cornwall, 1958. The overall finish is in Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey). The spinners, serials and squadron codes in Red. The latter are outlined in White, with the underwing serials also outlined in White. The aircraft code is in White.

AV71.406
Light Slate Grey BS381C: 639
(Vallejo Light Slate Grey)

AV71.001
Gloss White
(Vallejo White)

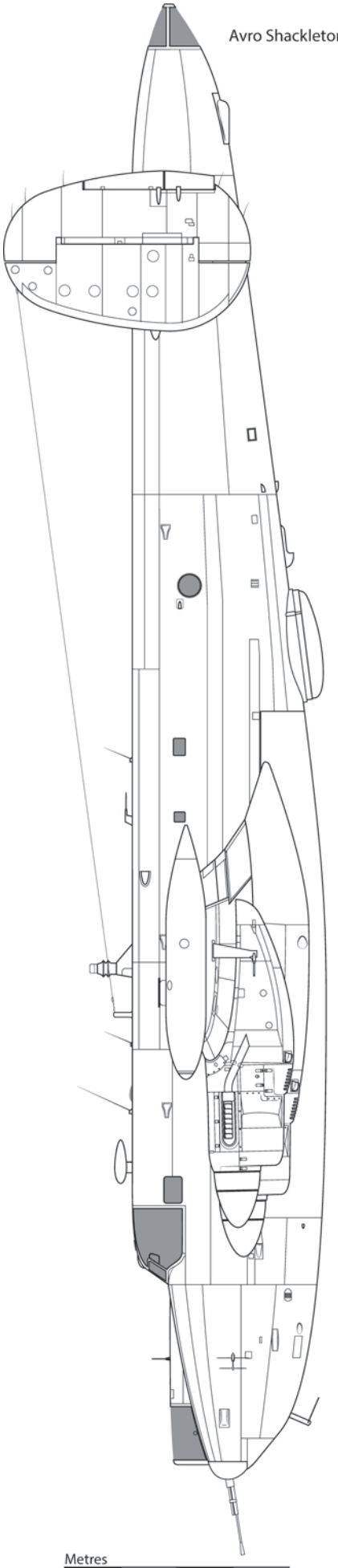


Avro Shackleton MR.2, WG557, operated by the Royal Aircraft Establishment, RAE Farnborough, 1961. Finish is as described for WG554 and WR957 (above), with the exception of the upper surface colours which are Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey). The serials are in Red, 'ROYAL NAVY' titles in Black.

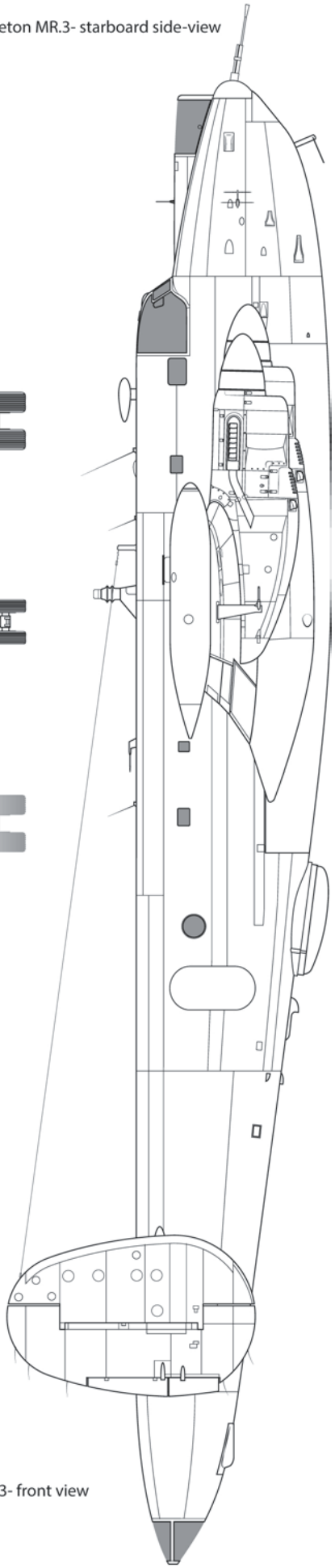
AV71.057
Black
(Vallejo Black)

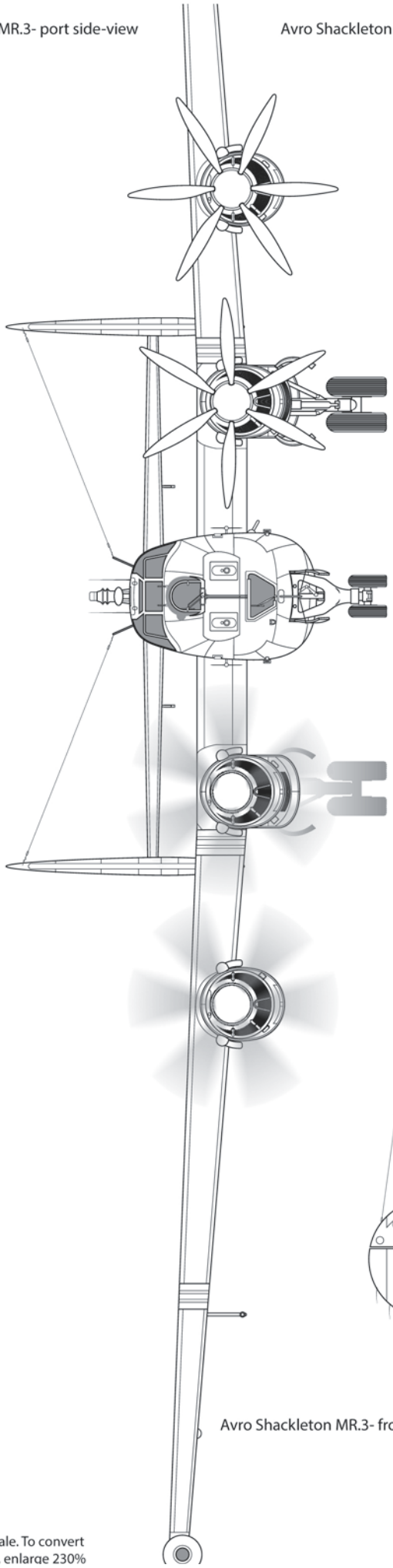
ARTWORK © SCALE AIRCRAFT MODELLING 2016 DRAWINGS & CAPTIONS BY Mark Rolfe

Avro Shackleton MR.3- port side-view



Avro Shackleton MR.3- starboard side-view



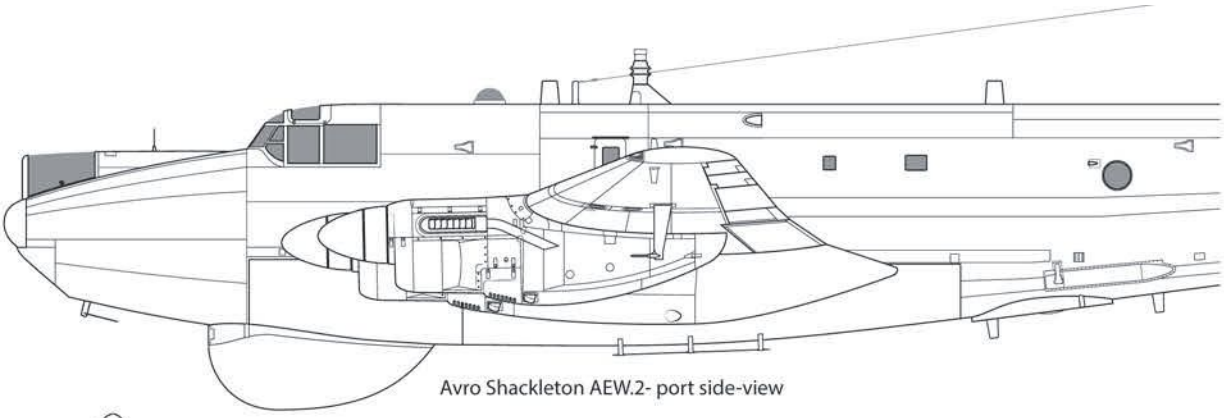


Avro Shackleton MR.3- front view

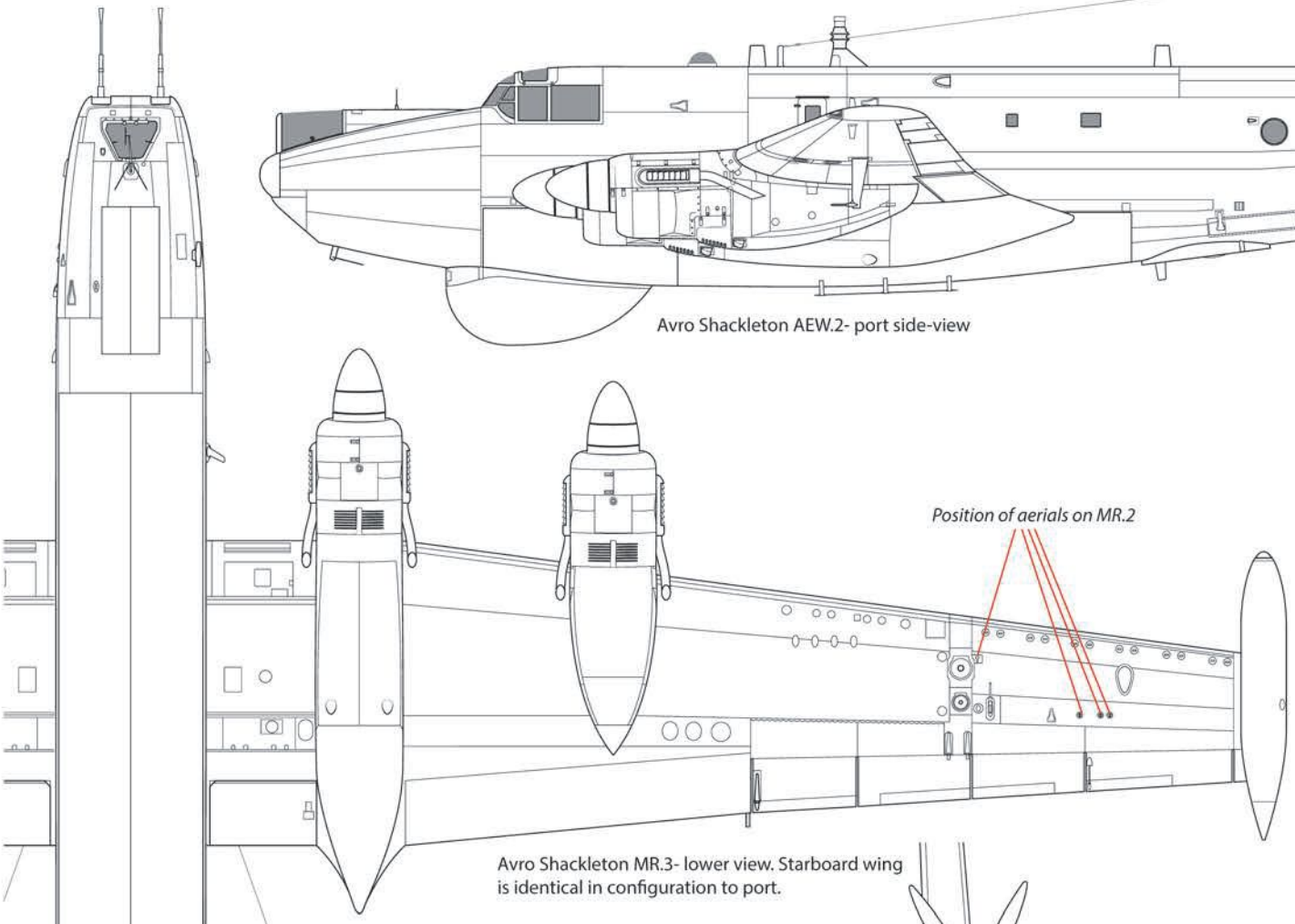
Metres

Feet

All black and white drawings are to 1/110th scale. To convert to 1/72nd, enlarge 153%. To convert to 1/48th, enlarge 230%



Avro Shackleton AEW.2- port side-view

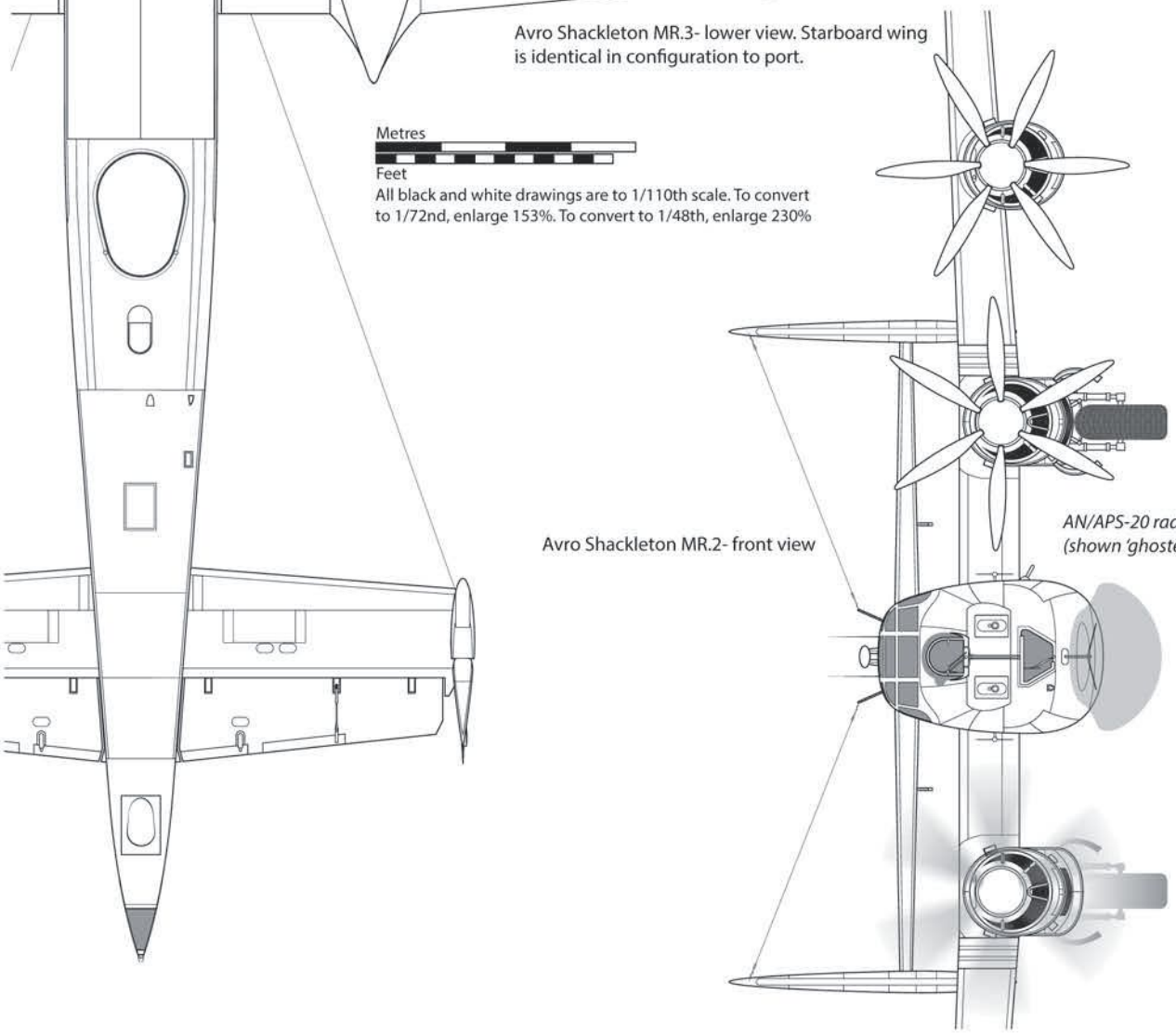


Avro Shackleton MR.3- lower view. Starboard wing is identical in configuration to port.

Metres

Feet

All black and white drawings are to 1/110th scale. To convert to 1/72nd, enlarge 153%. To convert to 1/48th, enlarge 230%



Avro Shackleton MR.2- front view

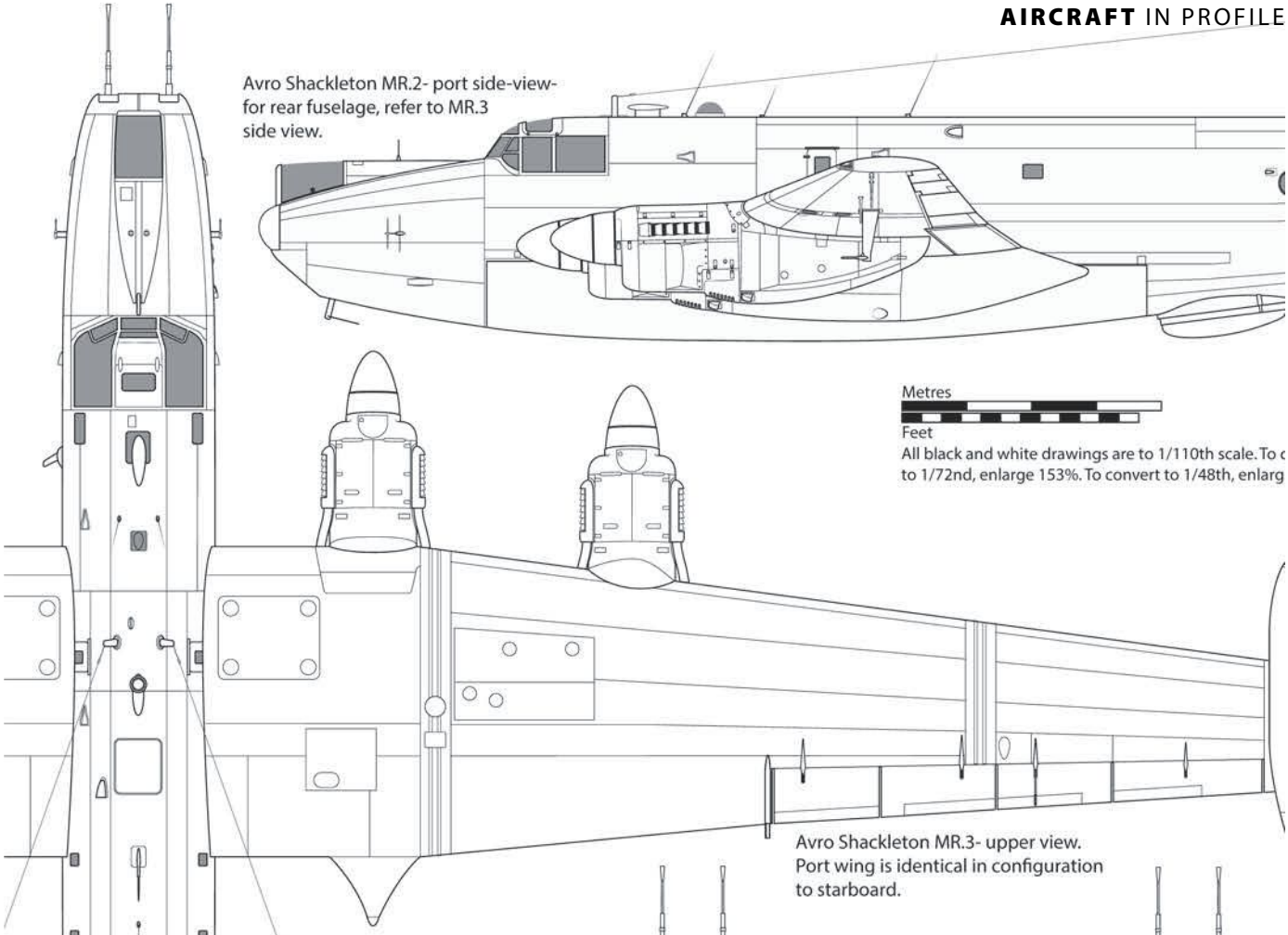
AN/APS-20 radar fitted to AEW. 2 variant (shown 'ghosted')

Avro Shackleton MR.2- port side-view- for rear fuselage, refer to MR.3 side view.

Metres

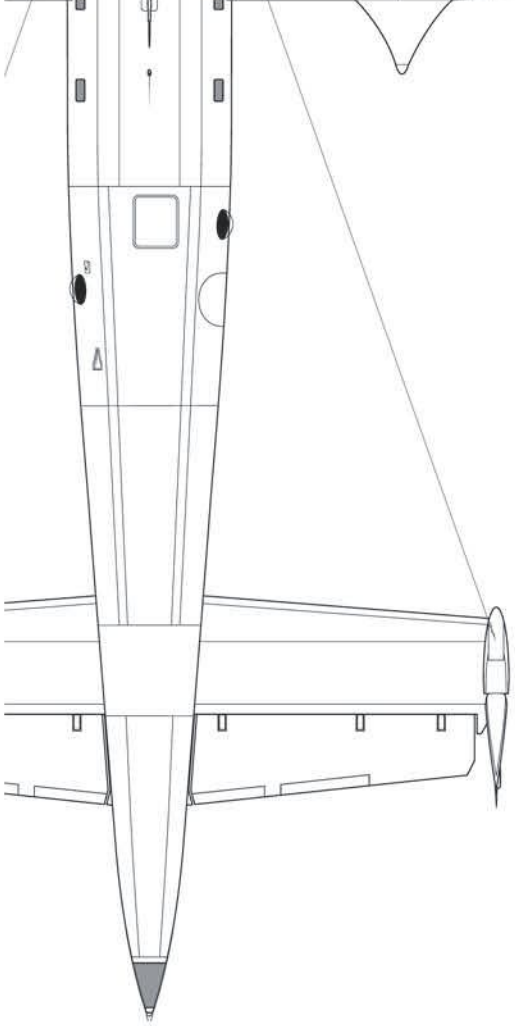
Feet

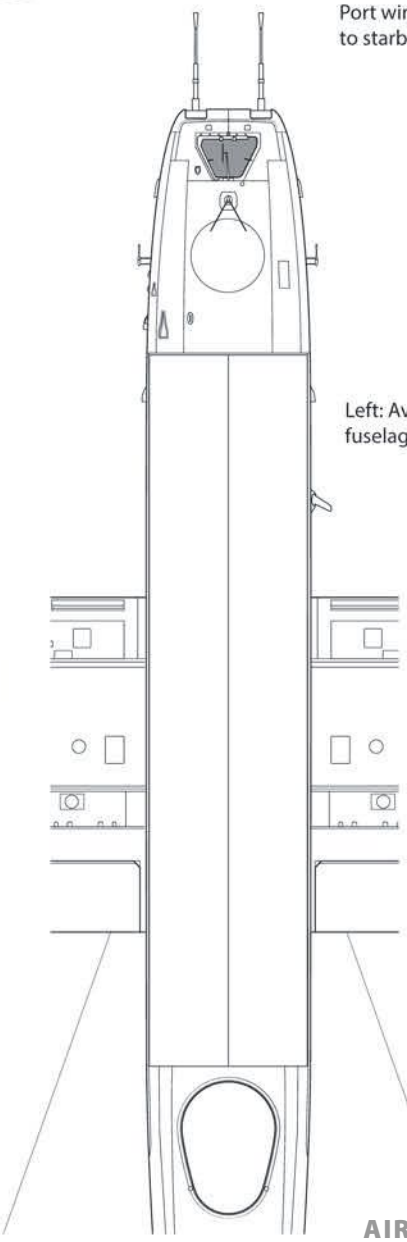
All black and white drawings are to 1/110th scale. To c to 1/72nd, enlarge 153%. To convert to 1/48th, enlarg



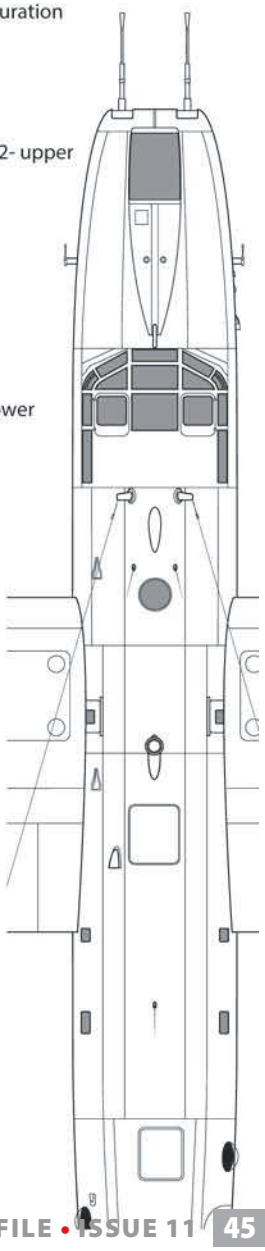
Avro Shackleton MR.3- upper view. Port wing is identical in configuration to starboard.

Avro Shackleton MR.2- upper fuselage scrap

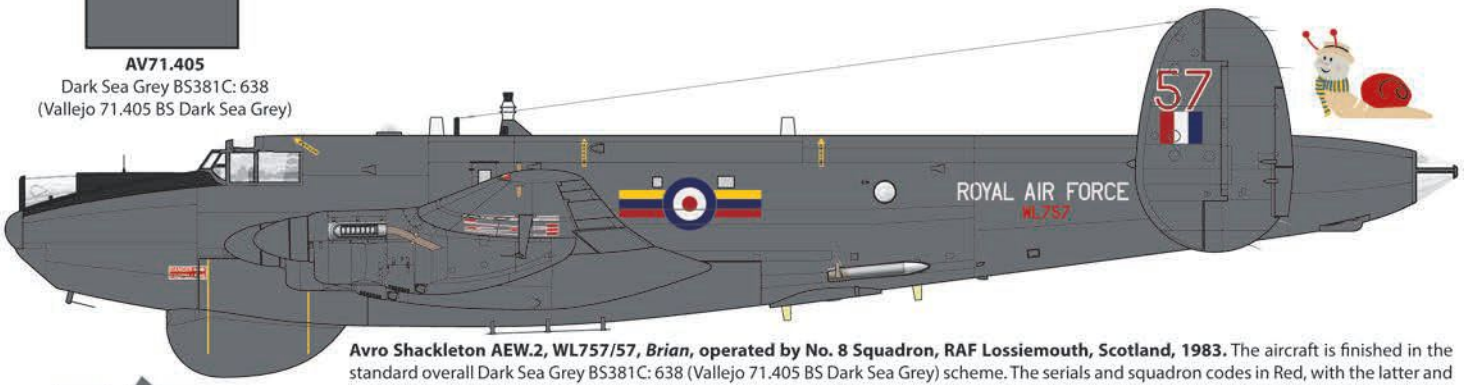




Left: Avro Shackleton MR.2- lower fuselage scrap



AV71.405
Dark Sea Grey BS381C: 638
(Vallejo 71.405 BS Dark Sea Grey)

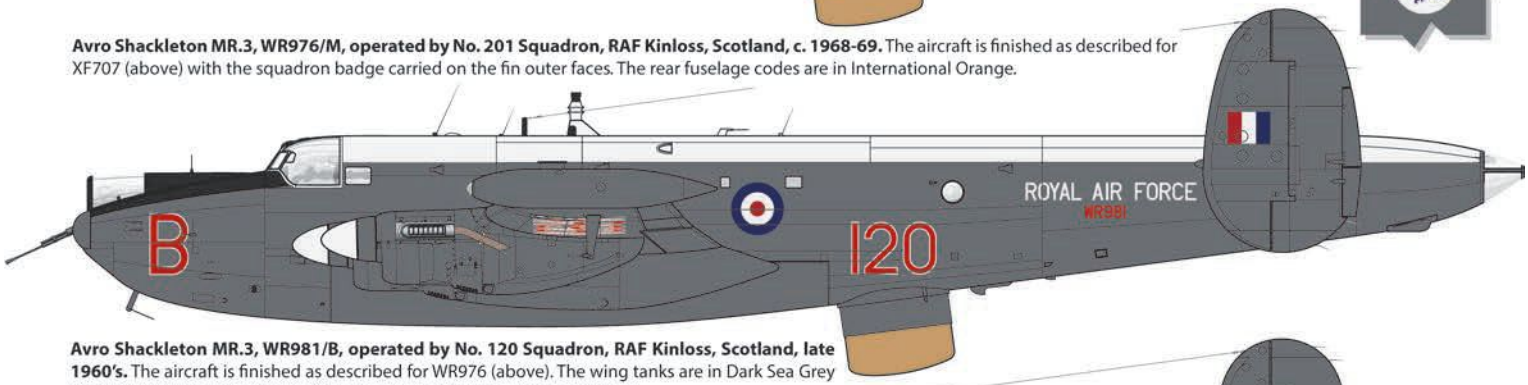


Avro Shackleton AEW.2, WL757/57, *Brian*, operated by No. 8 Squadron, RAF Lossiemouth, Scotland, 1983. The aircraft is finished in the standard overall Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey) scheme. The serials and squadron codes in Red, with the latter and underwing serials outlined in White. The fuselage roundels are flanked by bars in the squadron colours of (from the top); Golden Yellow, Dark Blue and Red. 'ROYAL AIR FORCE' titles are in White. The anti glare panel is in Matt Black. Usually, the squadron insignia was carried on the nose superimposed on a White disc. It is not present on this aircraft. In common with other 8 Squadron AEW.2's the aircraft was named after a 'Magic Roundabout' character, (see inset above right), although in this case, the artwork does not appear to have been carried.

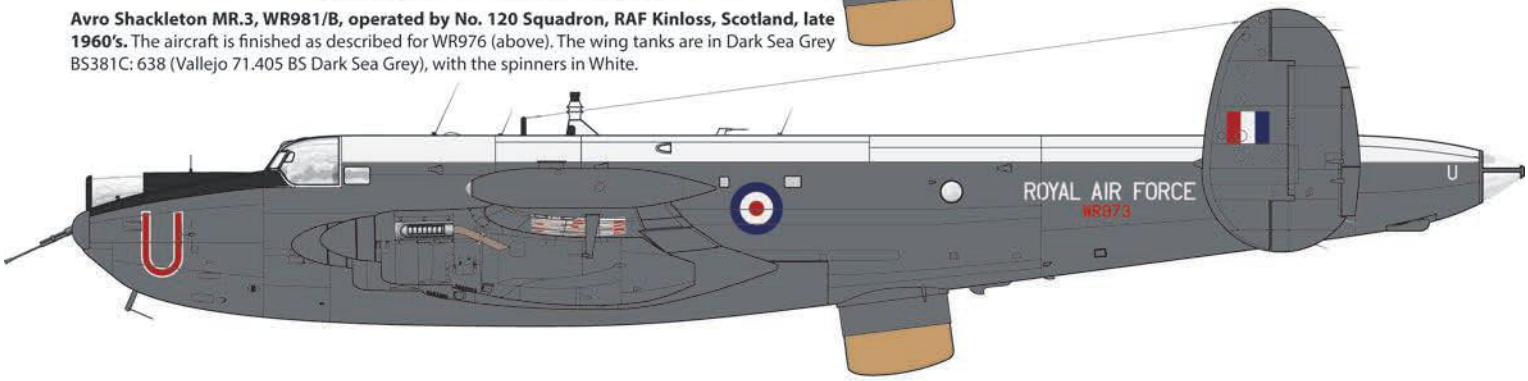
AV71.082
International Orange BS381C: 592
(Vallejo 71.082 Red Fluo)

Avro Shackleton MR.3, XF707/C, operated by No. 206 Squadron, RAF St. Mawgan, Cornwall, 1964. The overall finish is in Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey), with Gloss White to the upper surface of the fuselage. The codes and squadron codes are in Red, outlined in White. The fuselage serials are in Red only with those underwing outlined in White. The wing tanks are in International Orange BS381C: 592 (Vallejo 71.082 Red Fluo*). 'ROYAL AIR FORCE' titles are in White, with the squadron badge consisting of a Red octopus superimposed on a White disc carried on the fin outer surfaces. Union Flags are carried on each side of the nose. Note that this aircraft lacks the *Orange Harvest* 'spark plug' antenna atop the fuselage, but retains the ECM mount.

Avro Shackleton MR.3, WR976/M, operated by No. 201 Squadron, RAF Kinloss, Scotland, c. 1968-69. The aircraft is finished as described for XF707 (above) with the squadron badge carried on the fin outer faces. The rear fuselage codes are in International Orange.

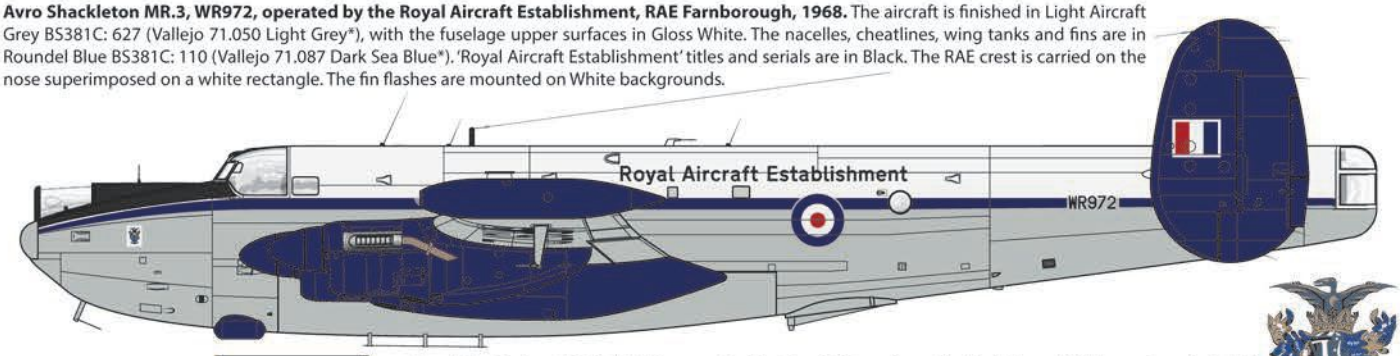


Avro Shackleton MR.3, WR981/B, operated by No. 120 Squadron, RAF Kinloss, Scotland, late 1960's. The aircraft is finished as described for WR976 (above). The wing tanks are in Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey), with the spinners in White.



Avro Shackleton MR.3, WR973/U, operated by No.206 Squadron, RAF Kinloss, Scotland, late 1960's. The aircraft is finished as described for WR981 (above). The rear fuselage code is in White, with the spinners in Dark Sea Grey. This is one of the Phase 3 modification aircraft fitted with Armstrong Siddeley Viper turbojets.

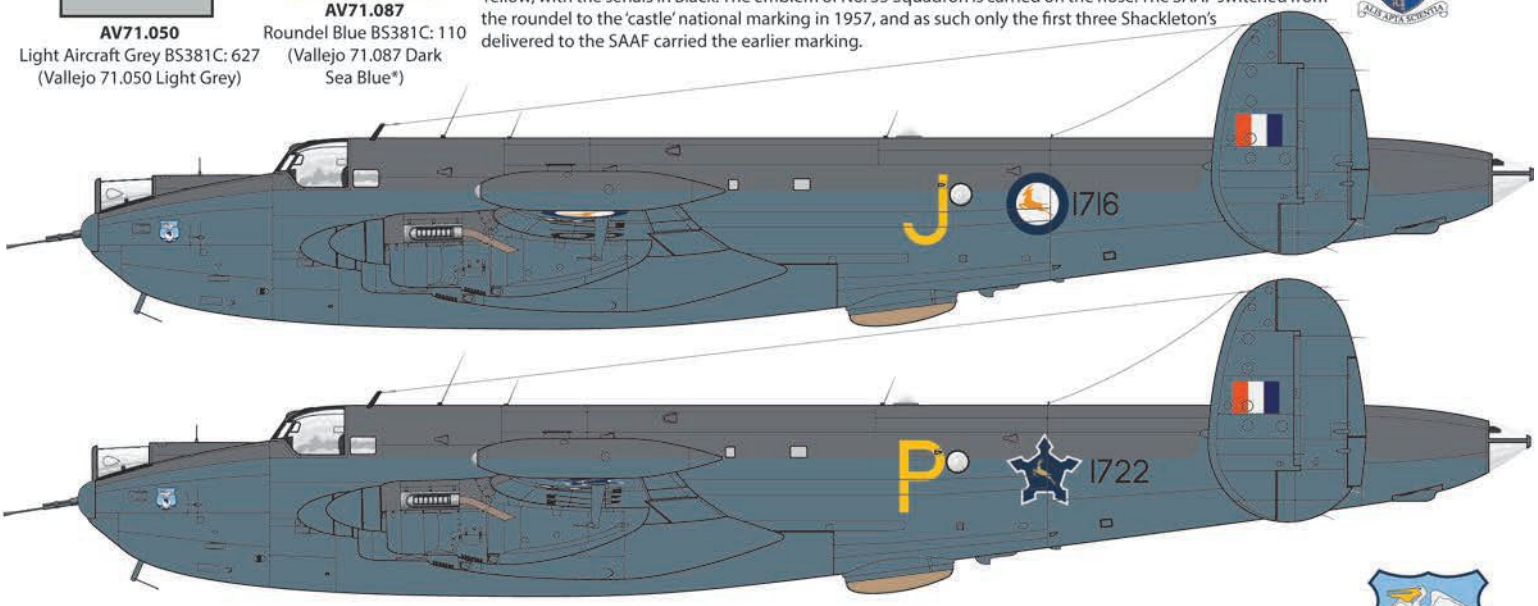
Avro Shackleton MR.3, WR972, operated by the Royal Aircraft Establishment, RAE Farnborough, 1968. The aircraft is finished in Light Aircraft Grey BS381C: 627 (Vallejo 71.050 Light Grey*), with the fuselage upper surfaces in Gloss White. The nacelles, cheatlines, wing tanks and fins are in Roundel Blue BS381C: 110 (Vallejo 71.087 Dark Sea Blue*). 'Royal Aircraft Establishment' titles and serials are in Black. The RAE crest is carried on the nose superimposed on a white rectangle. The fin flashes are mounted on White backgrounds.



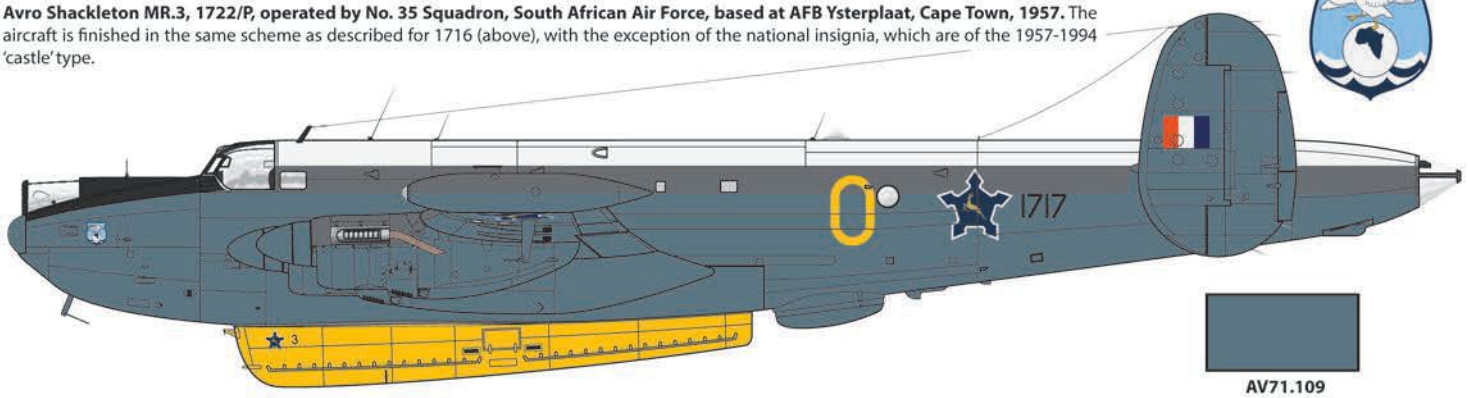
AV71.050
Light Aircraft Grey BS381C: 627 (Vallejo 71.050 Light Grey)

AV71.087
Roundel Blue BS381C: 110 (Vallejo 71.087 Dark Sea Blue*)

Avro Shackleton MR.3, 1716/J, operated by No. 35 Squadron, South African Air Force, based at AFB Ysterplaat, Cape Town, 1957. The overall finish is in PR Blue BS381C: 636 (Vallejo 71.109 UK PRU Blue) with Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey) to the upper surfaces. The codes are in Golden Yellow, with the serials in Black. The emblem of No. 35 Squadron is carried on the nose. The SAAF switched from the roundel to the 'castle' national marking in 1957, and as such only the first three Shackleton's delivered to the SAAF carried the earlier marking.



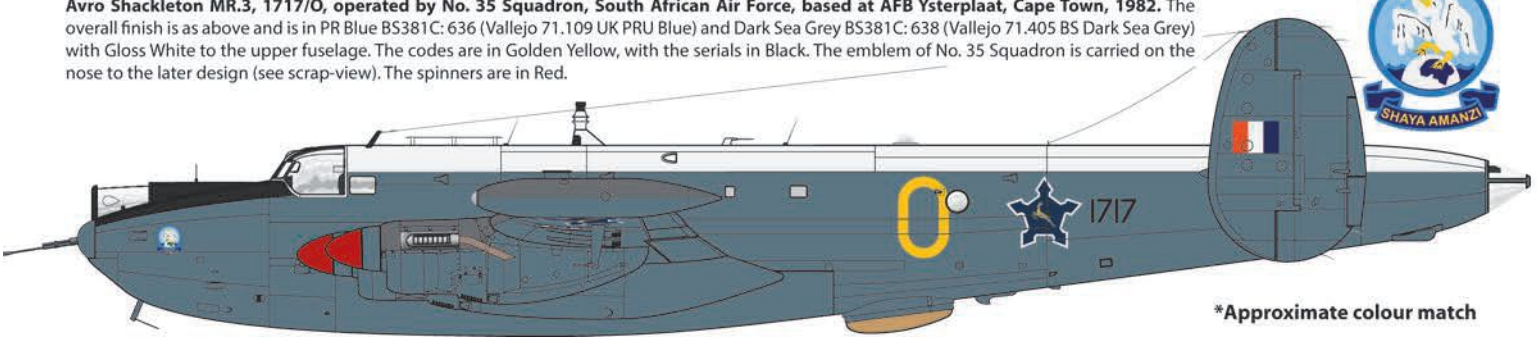
Avro Shackleton MR.3, 1722/P, operated by No. 35 Squadron, South African Air Force, based at AFB Ysterplaat, Cape Town, 1957. The aircraft is finished in the same scheme as described for 1716 (above), with the exception of the national insignia, which are of the 1957-1994 'castle' type.



AV71.109
PR Blue BS381C: 636 (Vallejo 71.109 UK PRU Blue)

Avro Shackleton MR.3, 1717/O, operated by No. 35 Squadron, South African Air Force, based at AFB Ysterplaat, Cape Town, circa. 1960's. The overall finish is in PR Blue BS381C: 636 (Vallejo 71.109 UK PRU Blue) and Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey). The fuselage upper surfaces are in Gloss White. The codes are in Golden Yellow, with the serials in Black. The emblem of No. 35 Squadron is carried on the nose. Note the SARO 3 airborne lifeboat, which is in Golden Yellow, and carries small SAAF 'castle' insignia and Black '3' code numbers.

Avro Shackleton MR.3, 1717/O, operated by No. 35 Squadron, South African Air Force, based at AFB Ysterplaat, Cape Town, 1982. The overall finish is as above and is in PR Blue BS381C: 636 (Vallejo 71.109 UK PRU Blue) and Dark Sea Grey BS381C: 638 (Vallejo 71.405 BS Dark Sea Grey) with Gloss White to the upper fuselage. The codes are in Golden Yellow, with the serials in Black. The emblem of No. 35 Squadron is carried on the nose to the later design (see scrap-view). The spinners are in Red.



*Approximate colour match

Avro Shackleton Walkaround

Photographs By **Ray Ball**

Both WR963 and WL790 were bought by the Shackleton Preservation Trust with the intention of operating a Shackleton in flying condition as a display aircraft at air show events in the UK, although the climate surrounding aircraft preservation precluded this at the time and WL790 was flown to the USA in 1994, where it operated for another fourteen years. WR963 became a source of parts to some extent but in 1997 the Shackleton Preservation Trust was reformed to restore WR963 at Coventry.

Within a decade WR963 was taxiing down the runway almost at the point of flight and the possibility of a Shackleton flying in the UK was once again looked at seriously, and feasibility studies commenced. Only the ongoing issue with the life span of the wing spars is currently keeping the aircraft on the ground.

www.avroshackleton.co.uk

WR963 now preserved in excellent condition at Coventry thanks to tremendous efforts by the trust

Port inner engine and nacelle detail

A closer look at the starboard main gear

Starboard outer engine nacelle

Port mid fuselage section

General view of the sharp end showing the recessed bomb aimers window and other nose details

Tailplane and rear fuselage – note the twin tailwheels and the narrow clearance between the bomb bay doors and the ground

Inside the fuselage reveals considerable variations in colouring with leather, bare wood and an assortment of greys noticeable. Modellers will have their work cut out replicating the mass of detail throughout the aircraft's lengthy interior

General view of the starboard inner number 2 engine and the cockpit exterior

Nicely restored period interior. For those tackling the Airfix kit the trust's website has plenty of images showing the machine, which is itself one of the subjects provided in the kit

Interior of the nose section looking towards the bomb aimer's window

Shackleton in Scale

Modelling the Growler

Needless to say the Shackleton has not been covered extensively in the larger scales, and unless someone at HK Models succumbs to a bizarre whim it is unlikely to be seen any time soon in 1/32. Sangar have a range of vacforms covering all variants in 1/48, but no injection moulded kits have so far been offered or are indeed likely. 1/144 has seen a series of beautiful resin kits from CMR, as well as a couple of metal prop sets, but it is in 1/72 that the type has really come to the fore.

Prior to the recent Airfix and Revell kits the only injection moulded option had been the FROG tooling which was first released in 1967. This has since been re boxed by a number of manufacturers, including Revell and even Hasegawa round about 1970. The MR.2 was covered in vacform by both Aeroclub and Gerald J. Elliott, which manufacturer released three kits covering all marks, the first in 1987. None of these are currently in production. Sangar also offer their vacforms in 1/72 but the new MR.2 from Airfix and AEW.2 from Revell are likely to be popular options, and will certainly consign all the various FROG boxings to the collectors' lofts.

Limited accessories were available for the old FROG kit from the usual suspects, but it is good to see Eduard pushing out a full range of etch and masks for both Airfix and Revell kits. Aftermarket decals too have come on board - Sangar's kit sheets are available separately as well - and it looks like fans of the aircraft will be getting everything they need over the coming months.

Kits

Aeroclub K310 1/72 Shackleton Mk 2
Airfix A11004 1/72 Shackleton MR.2
CMR 144001 1/144 Shackleton MR.3
CMR 144002 1/144 Shackleton MR.2/AEW.2
CMR 144003 1/144 Shackleton MR.1
FROG F172 1/72 Shackleton MR.3
Gerald J. Elliott 1/72 Shackleton MR 1
Gerald J. Elliott 1/72 Shackleton MR 2
Gerald J. Elliott 1/72 Shackleton MR 3
Revell 04920 1/72 Avro Shackleton AEW.2
Sanger-Contrail 1/72 Shackleton Mk 1/2/3
Sanger-Contrail 1/48 Shackleton Mk 1/2/3

Accessories

Aeroclub W019 1/144 Shackleton contra rotating props
Aeroclub K828 1/72 Shackleton Mk 2 Conversion MR.2 & AEW.2
Airwaves AEC72198 1/72 Shackleton MR.3 etched Flap Set
Airwaves AEC72199 1/72 Shackleton Interior Detail Set
Barracuda Studios BR72274 1/72 Shackleton MR.2, AEW 2 Wheel Set
Barracuda Studios BR72275 1/72 Shackleton MR.2 Early Exhausts
Eduard CX434 1/72 Shackleton MR.2 masks for Airfix kit
Eduard CX439 1/72 Shackleton AEW.2 masks for Revell kit
Eduard SS542 1/72 Shackleton MR.2 cockpit interior ZOOM for Airfix kit
Eduard SS547 1/72 Shackleton AEW.2 ZOOM for Revell kit
Eduard 72616 1/72 Shackleton MR.2 landing flaps for Airfix kit
Eduard 72618 1/72 Shackleton AEW.2 landing flaps for Revell kit
Eduard 73542 1/72 Shackleton MR.2 details for Airfix kit
Eduard 73544 1/72 Shackleton MR.2 fuselage interior for Airfix kit
Eduard 73547 1/72 Shackleton AEW.2 details for Revell kit

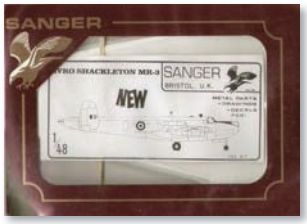
Decals

Aeroclub AD004 1/72 Shackleton MR.2 AEW2 Sheet 1 unit markings
Aeroclub AD005 1/72 Shackleton MR.2 AEW2 Sheet 2 squadron codes
MAV Decals 720196 1/72 Shackleton MR.3 Later version with castles
Print Scale 72130 1/72 Shackleton Pt.1
Xtradecal X72235 1/72 Shackleton MR.2 Pt.1
Xtradecal X72237 1/72 Shackleton MR.2 Pt.2

References

Avro Shackleton
Warpaint Series Number 6
By Alan W. Hall

Look no further than the excellent Warpaint title for all your reference needs. Now available in the print-on-demand range the book covers all variants and includes an A2 fold out sheet of 1/72 plans, just in case you had not realised how big a model this is going to make…



The Best Laid Plans

The Supermarine Swift Squadrons of the Royal Air Force which might have been 1950 – 1961. Part 1

The story of the development and brief history of the Supermarine Swift in RAF service was covered in the July 2015 (Vol.37, No.5) issue of Scale Aircraft Modelling so it is not the author's intention to cover exactly the same ground again here. Instead, it is intended to outline some of the plans that the RAF had for the Swift where information is available with regard to the identity of the squadrons that were intended to be equipped with the type and to consider their possible camouflage and marking schemes. Those shown in the illustrations given here have been drawn up with the provisions of the relevant Air Ministry Orders in mind along with some artistic licence based on known practice by the units concerned and the RAF in general. It is emphasised that all the documents referred to in the following account such as letters, memos, Air Ministry Orders and plans, such as Plan K (Star) of 1954 actually did exist.

Squadron Patterns

The proposed deployment of the Swift, along with other types of aircraft, was set out in a number of planning documents known as 'Squadron Patterns,' which were drawn up by the Air Ministry. These identified how many aircraft would be allocated to how many squadrons in which Command. They were usually drawn up on a quarterly basis with the years split into four quarters, January to March, April to June, July to September and October to December with the squadron establishments given as being correct for the last day of the last month of each quarter. The Squadron Patterns given in Plan G of 11 October 1950, Plan H of March 1951 and Plan J of September 1952 did not give any details of the number plates for the Swift squadrons envisaged in these plans. The first number plates for Swift squadrons are mentioned in connection with Plan K of January 1953.

Plan K of January 1953

In Fighter Command, Plan K of January 1953 envisaged eight Regular RAF Swift squadrons of 22 Unit Establishment (UE) and ten Royal Auxiliary Air Force (RAuxAF) Swift squadrons of 8 UE being equipped by the December quarter of 1955. The first Regular RAF squadron was expected to equip in the June quarter of 1953 and the last in the March quarter of 1955. The first four RAuxAF squadrons were to receive their Swifts during the June quarter of 1955 with the remaining six being equipped in the September quarter of 1955.

By 21 July 1953 HQ Fighter Command had produced a tentative proposal for the 1954-56 phase of Plan K, which not only gave the forecast date of the Swift squadrons re-equipment or formation, but also gave their number plates as follows. No Swift mark numbers were stated:

June quarter 1954 – 56 Squadron at Waterbeach.

December quarter 1954 – 63 Squadron at Waterbeach and 19 Squadron at Church Fenton.

March quarter 1955 – 72 Squadron at Church Fenton and 'H' Squadron at North Luffenham.

June quarter 1955 – 111 Squadron at North Luffenham, 602 Squadron at Renfriew and 603 Squadron at Turnhouse.

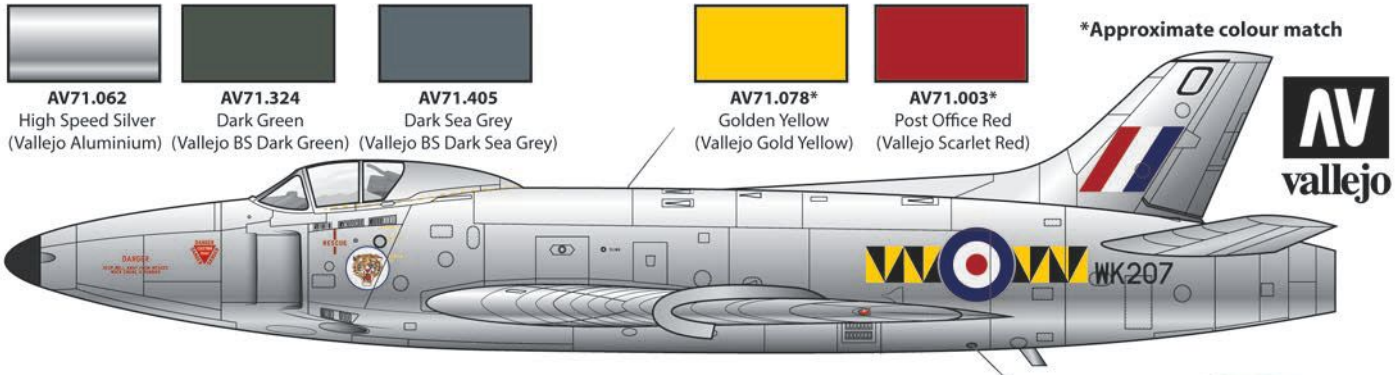
September quarter 1955 – 607 Squadron at Ouston and 608 Squadron at Thornaby.

December quarter 1955 – 502 Squadron at Aldergrove, 612 Squadron at Dyce and 613 Squadron at Ringway.

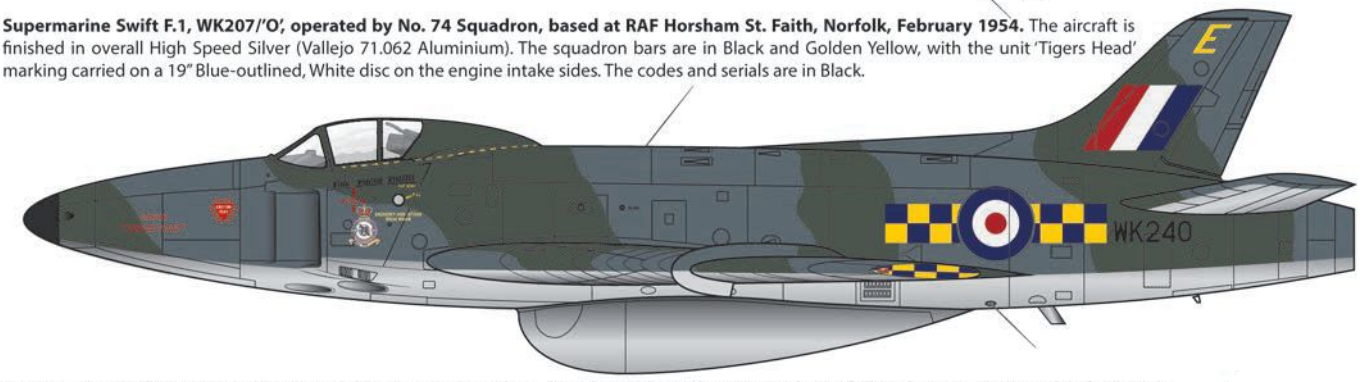
March Quarter 1956 – 605 Squadron at Honily, 501 Squadron at Filton and 614 Squadron at Llandow.

There would appear to be two regular squadrons missing from this list, the reason for which is thought to be because by the time that this list was drawn up, a decision as to the identity and location of the first two Swift squadrons in Fighter Command had already been made.

When the Air Ministry began to consider the question as to how the Swift should be



Supermarine Swift F.1, WK207/'O', operated by No. 74 Squadron, based at RAF Horsham St. Faith, Norfolk, February 1954. The aircraft is finished in overall High Speed Silver (Vallejo 71.062 Aluminium). The squadron bars are in Black and Golden Yellow, with the unit 'Tigers Head' marking carried on a 19" Blue-outlined, White disc on the engine intake sides. The codes and serials are in Black.



Supermarine Swift F.2, WK240/'E', operated by No. 245 Squadron, based at RAF Horsham St. Faith, Norfolk, July 1954. The aircraft is finished in the later standard finish of BS381C: 241 Dark Green (Vallejo 71.324 BS Dark Green) and BS381C: 638 Dark Sea Grey (Vallejo 71.405 BS Dark Sea Grey) with High Speed Silver (Vallejo 71.062 Aluminium) undersides. The squadron bars and wing tip colours are in Roundel Blue and Golden Yellow, with the unit crest carried on the engine intake sides. The serials are in Black, with the codes in Golden Yellow. Note that in all cases on camouflaged aircraft, the demarcation between the upper and lower surfaces colours extends backwards for six inches underneath the wings and tailplanes.

deployed in Fighter Command, considerable care was taken to allow for the radar control facilities that were available and to ensure that the new aircraft would be deployed in the position where they would be most effective in the interception role. As a result of this study, the C-in-C Fighter Command decided in December 1952 that the order of priority for the re-equipment of the Regular Day Fighter squadrons with swept wing Fighters would be those which were based at the following Stations in the following order:

1) Horsham St Faith
2) Leuchars
3) Waterbeach
4) Linton on Ouse
5) Wattisham
6) Church Fenton
7) Odiham
8) Duxford
9) Tangmere
10) Ouston
11) Acklington

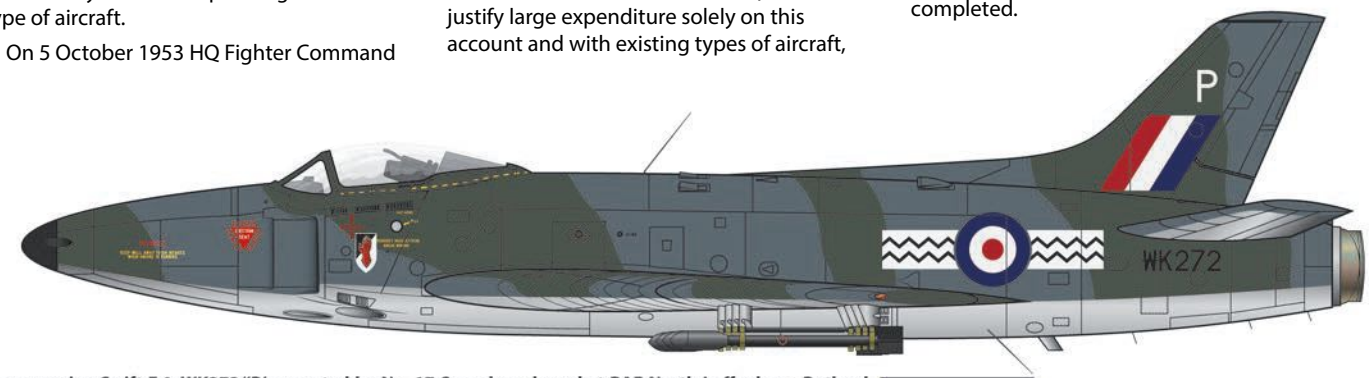
At this time, Horsham St Faith was home to 74 Squadron and 245 Squadron, both of which were equipped with the Meteor F.8. Along with the factors mentioned above, the decision to equip 74 Squadron and 245 Squadron at Horsham St. Faith first appears to have been at least partly influenced by the fact that they had been the first squadrons to have received the Meteor F.8 and the Air Ministry tried, where possible, to re-equip units in order of priority based on the length of time they had been operating their older type of aircraft.

On 5 October 1953 HQ Fighter Command was given authority by the Air Ministry for 74 Squadron based at Horsham St. Faith to re-arm from 22 UE Meteor F.8s to 22 UE Swift F.1/2s with effect from 1 November 1953. This was followed on 28 December 1953 by authority to re-arm 245 Squadron, also based at Horsham St. Faith, similarly, with effect from 30 June 1954.

The decision to re-equip the Horsham St Faith squadrons with Swifts was called into question however by what is described in one document as 'long standing hard feeling about noise and disturbance from aircraft in the Norwich area.' Complaints are said to have started from 1946-7 onwards, but by October 1953 the current complaints were mainly arising from the new housing estates to the south west of the main North East – South West runway, especially the suburb of Hellesdon, which lay immediately off the end of that runway. This problem was apparently so acute that the Air Ministry had been forced to abandon plans to operate an All Weather Fighter squadron from Horsham St. Faith in order to avoid 'round the clock' flying.

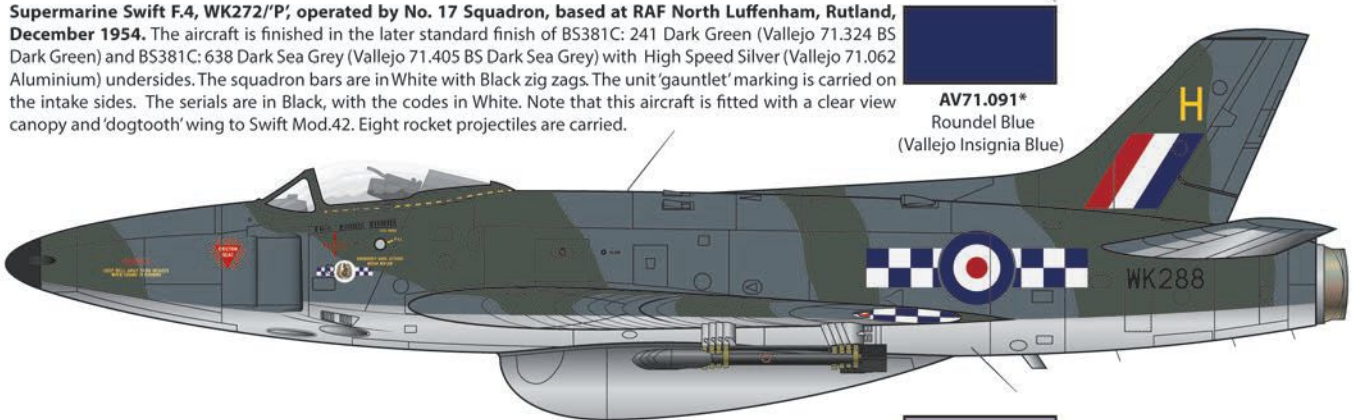
Even so, by December 1953, it was becoming clear that the disturbance was reaching such a pitch that it was considered possible that a major political storm might blow up as a result. The RAF therefore reviewed of the situation and by April 1954 had concluded that there could be no question of closing the Station as it was strategically well placed for the defence of the Eastern counties and a significant amount of capital had been invested in it. Much as the Air Ministry was sympathetic to the feelings of the people of Norwich and wished to alleviate the nuisance, it was not possible to justify large expenditure solely on this account and with existing types of aircraft, the present North East-South West main runway met the RAF requirement. That said however, the new swept wing Fighters required a flatter angle on take off and landing and the margin of safety on the existing main runway would fall below the acceptable limit for normal operations. There was now therefore an operational need for a main runway with a wider safety margin and it was decided to meet this requirement by extending the secondary East-West runway.

By this time, fate had taken a hand in these plans as on 25 November 1953, the Swift that was being flown at A&AEE for handling trials intended to lead to a Service Certificate of Airworthiness was involved in a fatal crash. This accident effectively ended the Air Ministry's hopes of getting the Swift into squadron service during 1953, which had been the aim since Plan G of 1950. This loss, along with the concerns about the suitability of the main runway at Horsham St Faith, led to a revision of the plans for the introduction of the Swift to squadron service. The instructions to re-arm 74 and 245 Squadrons were cancelled on 14 January 1954 and instructions were given instead to re-arm 56 Squadron at Waterbeach from 22 UE Meteor F.8s to 22 UE Swifts during the March quarter of 1954. The same letter stated that the second squadron to re arm with the Swift would be 63 Squadron also at Waterbeach in the March quarter of 1954. As a result in this change of plan, 56 Squadron received its first Swift F.1s in February 1954 whilst 74 and 245 Squadrons retained their Meteors, with their re-equipment delayed until work on the new runway and associated ancillary services such as Operational Readiness Platforms had been completed.



Supermarine Swift F.4, WK272/'P', operated by No. 17 Squadron, based at RAF North Luffenham, Rutland, December 1954. The aircraft is finished in the later standard finish of BS381C: 241 Dark Green (Vallejo 71.324 BS Dark Green) and BS381C: 638 Dark Sea Grey (Vallejo 71.405 BS Dark Sea Grey) with High Speed Silver (Vallejo 71.062 Aluminium) undersides. The squadron bars are in White with Black zig zags. The unit 'gauntlet' marking is carried on the intake sides. The serials are in Black, with the codes in White. Note that this aircraft is fitted with a clear view canopy and 'dogtooth' wing to Swift Mod.42. Eight rocket projectiles are carried.

AV71.091*
Roundel Blue
(Vallejo Insignia Blue)



Supermarine Swift F.4, WK288/'H', operated by No. 19 Squadron, based at RAF Church Fenton, North Yorkshire, March 1955. The aircraft is finished in the later standard finish of BS381C: 241 Dark Green (Vallejo 71.324 BS Dark Green) and BS381C: 638 Dark Sea Grey (Vallejo 71.405 BS Dark Sea Grey) with High Speed Silver (Vallejo 71.062 Aluminium) undersides. The squadron bars are in White and Roundel Blue. The unit marking is carried on the intake sides on a White disc flanked by White and Roundel Blue checks. The serials are in Black, with the codes in Golden Yellow. Note that this aircraft is fitted with a clear view canopy and 'dogtooth' wing to Swift Mod.42. Eight rocket projectiles and a slipper tank are carried.

Mauve
(to BS381C: 797
Light Violet)

Following these events, Fighter Command drew up a new re-equipment programme that forecast 17 Sqn (no longer 111 Sqn, which was now patterned as a Hunter squadron at North Weald from September quarter 1955) alongside 'H' Sqn at North Luffenham in the December quarter of 1954; 19 and 72 Squadrons at Church Fenton and 74 Sqn at Horsham St Faith re-equipping in the March quarter of 1955 and 245 Sqn at Horsham St. Faith re-equipping in the June quarter 1955. The same pattern also forecast 56 Sqn at Waterbeach re-equipping with the Swift F.7 from the December quarter 1955.

It would appear that under Plan K six of the eight Regular squadrons were to be equipped with Blue Sky armed Swift F.7s. Unfortunately, at the time of writing, no documents have come to light to suggest which Swift squadrons these would have been other than 56 Squadron.

In Second Tactical Air Force (2 TAF), three Swift Squadrons were envisaged, two equipped with the Fighter Reconnaissance version and one with the short range Photographic Reconnaissance version.

In Middle East Air Force (MEAF), it was intended that a Swift Reconnaissance squadron would be formed of sixteen UE operating a mix of eight Fighter Reconnaissance and eight short range Photographic Reconnaissance Swifts.

No number plates appear to have been assigned to any of the 2 TAF or MEAF squadrons at this time but it is likely that they would have been the same units suggested under Plan K (Star), which will be dealt with later.

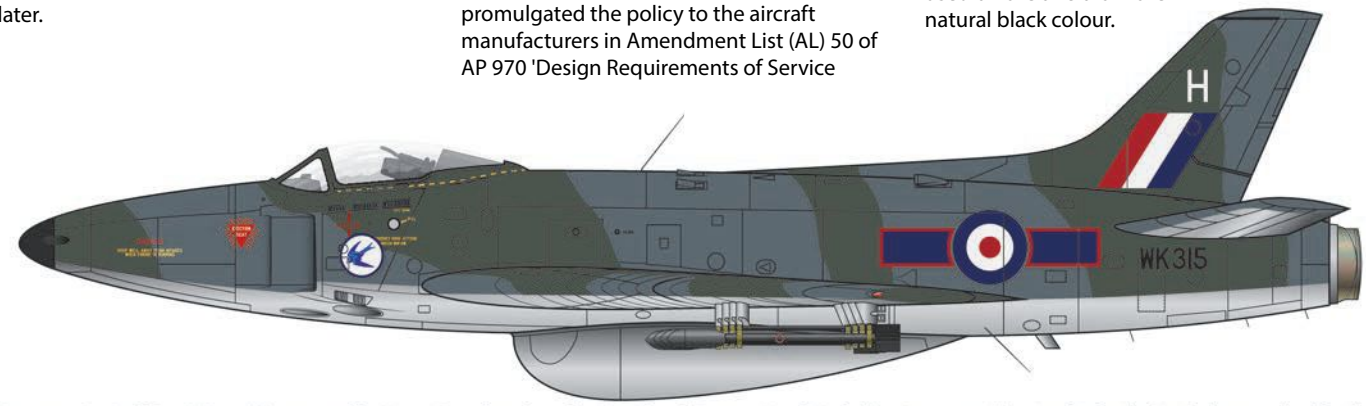
Camouflage for Fighter Command Swifts

The overall High Speed Silver camouflage scheme, which was applied to the Swift F.1 when it deliveries commenced to Fighter Command in February 1954, was laid down in paragraph 5 of AMO A.658/52 entitled 'Colouring and marking of Aircraft' dated 18 December 1952. Paragraph 5 stated that 'All fighter aircraft based in the United Kingdom are to be painted in a high speed silver finish'. The term 'high speed silver' can perhaps be described as an official colloquialism for an aluminium pigmented finish in one of the high speed DTD specification paints - of which there were several - which were considered to be suitable for fast jets.

This overall High Speed Silver scheme had been adopted for Fighter aircraft in Fighter Command as the result of the findings of a Working Party established by Fighter Command to study the camouflage of Fighter aircraft during 1951.The Working Party's final report was dated 1 January 1952 and recommended that both Short Range Day Fighters and All Weather Fighters of Fighter Command should be finished 'silver' on account of it being found that an aircraft with a painted silver finish had proven the most difficult to see in the air at altitude. It was however emphasised that that this recommendation only applied to the interceptors of Fighter Command as consideration had not been given to Fighters deployed in other Theatres or roles.

Though the Air Ministry adopted the findings of the Working Party and promulgated the policy to the aircraft manufacturers in Amendment List (AL) 50 of AP 970 'Design Requirements of Service Aircraft' dated 1 August 1952, which stated that All Weather and Short Range Day Fighters of Fighter Command were to be painted with an Aluminium finish, Supermarine had been informed well before this that Swifts were to be 'silver'. The Air Ministry informed the MoS of the decision that the Swift was to be camouflaged with a silver finish by telephone on 28 February 1952 and an MoS Memo dated 4 March 1952 stated that the firm had been informed of this decision.

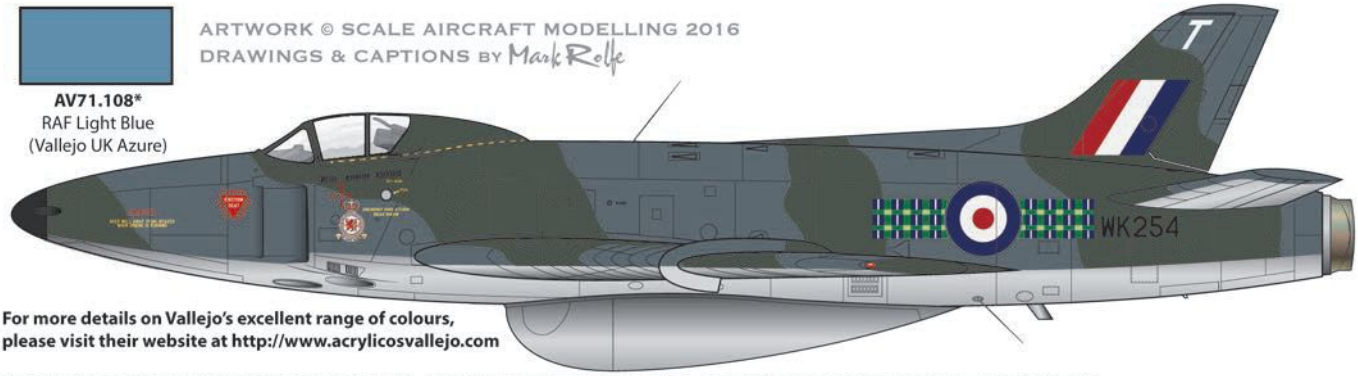
The only significant part of the external finish that was not High Speed Silver was the radome for the Radar Ranging Mk 1 gunsight in the extreme nose of the aircraft. This was due to the fact that any kind of 'silver' finish was not sufficiently transparent to radio waves to allow such a finish to be used. By the early 1950s it had become apparent that the fibre glass employed at that time to produce electronically transparent radomes had proved prone to complete failure after some ten minutes flying at 400 mph through heavy rain. As a result it was found necessary to apply a protective coating of Neoprene to the forward facing radomes of high performance aircraft to prevent rain erosion. Initially, the MoS advised Supermarine that Swift radomes were to be coloured Sky Grey, but this proposal foundered when Supermarine were informed by the manufacturers that the specifications for the manufacture of the Neoprene had been changed and no longer allowed colouring of the material by pigmentation of any kind, not just silver. As a result, the radomes had to be delivered and used on the aircraft in their natural black colour.



Supermarine Swift F.4, WK315/'H', operated by No. 72 Squadron, based at RAF Church Fenton, North Yorkshire, June 1955. The aircraft is finished in the later standard finish of BS381C: 241 Dark Green (Vallejo 71.324 BS Dark Green) and BS381C: 638 Dark Sea Grey (Vallejo 71.405 BS Dark Sea Grey) with High Speed Silver (Vallejo 71.062 Aluminium) undersides. The squadron bars are in Post Office Red and Roundel Blue. The unit marking is carried on the intake sides on a White disc with a Roundel Blue outline. The serials are in Black, with the codes in White. Note that this aircraft is fitted with a clear view canopy and 'dogtooth' wing to Swift Mod.42. Eight rocket projectiles and a slipper tank are carried.

ARTWORK © SCALE AIRCRAFT MODELLING 2016
DRAWINGS & CAPTIONS BY Mark Rolfe

AV71.108*
RAF Light Blue
(Vallejo UK Azure)



For more details on Vallejo's excellent range of colours, please visit their website at http://www.acrylicosvallejo.com

Supermarine Swift F.3, WK254/'T', operated by No. 602 (City of Glasgow) Squadron, based at RAF Renfrew, Scotland, June 1955. The aircraft is finished in the later standard finish of BS381C: 241 Dark Green (Vallejo 71.324 BS Dark Green) and BS381C: 638 Dark Sea Grey (Vallejo 71.405 BS Dark Sea Grey) with High Speed Silver (Vallejo 71.062 Aluminium) undersides. The squadron bars are in tartan colours consisting of Roundel Blue, Brilliant Green, Eau-de-Nil and White. The squadron crest is carried on the intake sides. The serials are in Black, with the codes in White.

National Markings and Serial Numbers

All Swift F.1s finished in the High Speed Silver finish appear to have left the production line with the usual equally proportioned Post War National markings of roundels and fin flashes in Bright Red, White and Bright Blue. There would appear to be some question as to the dimensions of these markings however. The widely respected 'Modeldecal' range quoted twenty four inches as the diameter of the roundels, but examination of photographs suggests a diameter of approximately twenty seven inches.

The swept style fin marking appears to have initially been twenty four inches in both height and width, but some photographs appear to show that some Swift F.1s on 56 Squadron had flashes of twenty seven inches in height and twenty four inches in width with the extra three inches being added to the bottom of the marking. Subsequently, when the Swift FR.5 entered service, the fin marking was re-located further down the fin

The serial number of the aircraft was applied to the rear fuselage in Black characters eight inches high whilst those under the main planes were approximately thirty six inches high, applied in the traditional manner so as to have the letters outboard on each wing enabling them to be read from both in front and behind the aircraft when seen from below.

Squadron Markings

Post war Fighter squadrons had been given authority once again to display squadron colours on their aircraft from 30 June 1950 and the practice had become well established by the time that 56 Squadron took delivery of their Swifts. 56 Sqn initially applied their red and white chequers either side of the fuselage roundel in the traditional manner using six six and a half inch squares each side of the roundel, the base and top line of those adjacent to the roundels being eight and a half inches long. These were later supplemented by six red and white chequers on the tips of each main plane. This known size of marking has been used as a basis for the squadron markings shown in the illustrations given here.

Camouflage Schemes Revised

In the summer of 1953, the policy of finishing the Fighters of Fighter Command in High Speed Silver was brought into question as a result of combat experience gained in Korea. In a loose minute dated 28 July 1953, the Director of Operations set out current thinking on the subject. The minute stated that although having aircraft coloured silver at height was considered advantageous, concealment on the ground and at low level must also influence the colouring. Consequently, in endeavouring to obtain the best compromise for camouflage at all levels, it had been decided to adopt the Tactical Air Force technique of painting the upper surfaces of all aircraft in a grey and green camouflage pattern whilst the under surfaces would be coloured so that they blended with the sky background.

In the light of this decision, a revised scheme for Fighter Command aircraft was promulgated by the issue of A L 56 to AP 970 to the aircraft manufacturers on 1 September 1953 and AMO A.228/53 to the Service on 3 September 1953. The wording of these two documents was to all intents and purposes identical.

AP970 Section 2 paragraph 3 was headed 'Fighter Aeroplanes based in the United Kingdom' and stated that all fighter aeroplanes in the United Kingdom were be painted in a high speed finish as follows:-

(i) Upper surfaces

(a) unshaded areas – Dark Green

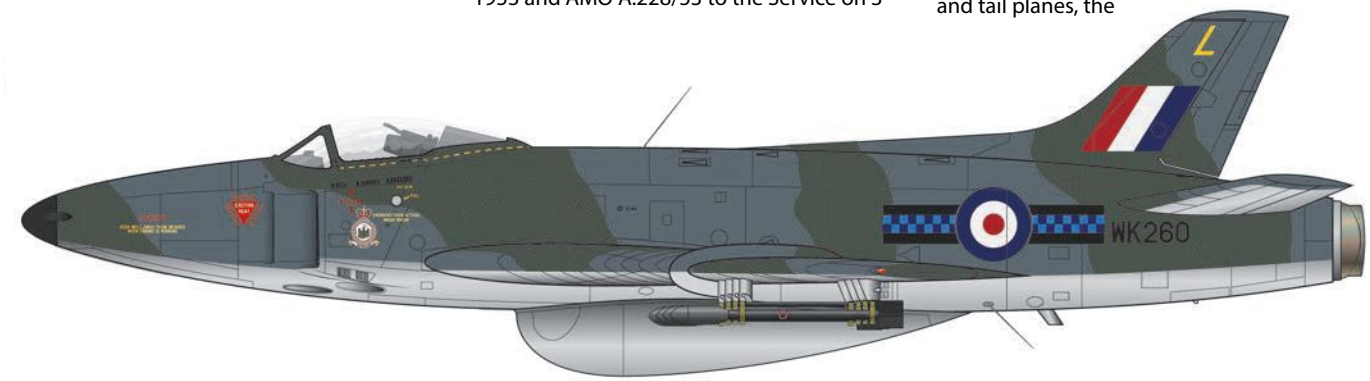
(b) shaded areas – Dark Sea Grey

(ii) Under surface – Silver

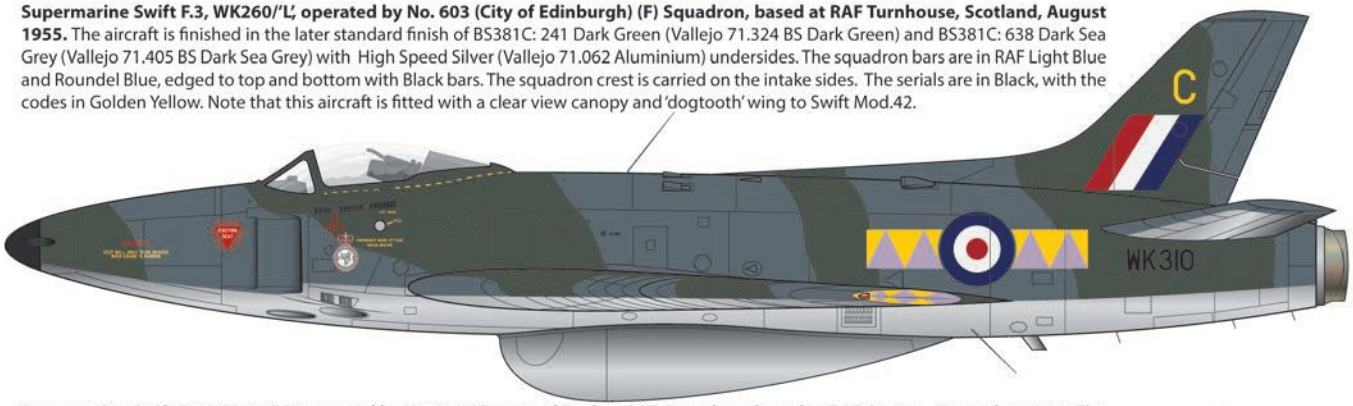
(iii) Boundary between upper and under surfaces Pattern No.1

The shaded and unshaded areas referred to were shown on an illustration of a single engined aircraft that bore a passing resemblance to a Hawker Hurricane and showed the disruptive pattern that had originally been the 'B' Scheme on Air Diagram 1160 'Camouflage Scheme for Single Engine Monoplanes – Army Co-operation aeroplanes and Fighters', whilst Pattern No.1 was the official nomenclature for a camouflage scheme that extended down the sides of the fuselage with the demarcation between the upper and under surface colours following a low 60 degree tangent line.

The camouflage pattern applied to the upper surfaces of the Swift F.2 was not an exact copy of the design shown in the AP, but it was very close, allowing for the differences in size and shape between a Hurricane and a Swift. The only major departure from the AP diagram is that there is a unit of green camouflage missing from the tip of the port tail plane. On both the main and tail planes, the



Supermarine Swift F.3, WK260/'L', operated by No. 603 (City of Edinburgh) (F) Squadron, based at RAF Turnhouse, Scotland, August 1955. The aircraft is finished in the later standard finish of BS381C: 241 Dark Green (Vallejo 71.324 BS Dark Green) and BS381C: 638 Dark Sea Grey (Vallejo 71.405 BS Dark Sea Grey) with High Speed Silver (Vallejo 71.062 Aluminium) undersides. The squadron bars are in RAF Light Blue and Roundel Blue, edged to top and bottom with Black bars. The squadron crest is carried on the intake sides. The serials are in Black, with the codes in Golden Yellow. Note that this aircraft is fitted with a clear view canopy and 'dogtooth' wing to Swift Mod.42.



Supermarine Swift F.4, WK310/'C', operated by No. 607 (County of Durham) (F) Squadron, based at RAF Ouston, November 1955. The aircraft is finished in the later standard finish of BS381C: 241 Dark Green (Vallejo 71.324 BS Dark Green) and BS381C: 638 Dark Sea Grey (Vallejo 71.405 BS Dark Sea Grey) with High Speed Silver (Vallejo 71.062 Aluminium) undersides. The squadron bars and wing tips are in Golden Yellow with Mauve (to BS381C: 797) triangles. The squadron crest is carried on the intake sides. The serials are in Black, with the codes in Golden Yellow. Note that this aircraft was ordered as an F.1, but delivered as an F.4 fitted with a clear view canopy and 'dogtooth' wing to Swift Mod. 42. Note that the squadron crest does not have a motto sash.

demarcation between the upper and under surface colours followed the centreline of the leading edges.

These new instructions do not appear to have been retrospective as the Swift F.1s, which began to arrive on 56 Squadron from February 1954, did so in the overall High Speed Silver finish. The new Fighter Command scheme of Dark Green, Dark Sea Grey and High Speed Silver appears to have been introduced to the Swift on the F.2, the first of which arrived at 56 Squadron on 30 August 1954.

Arming the Swift

Initially, Supermarine proposed that the Swift be armed with four 20mm Hispano cannon but as the modern aircraft of the day, especially Bombers were becoming much less vulnerable to attack with automatic guns, the Air Ministry asked that these be replaced by four 30mm Aden cannon as the Aden gun shells carried seventy five grams of HE compared with twelve grams for the Hispano. The Aden gun also had a much higher rate of fire of 1,200 rounds per minute compared with the Hispano's 600, which reduced the amount of time that the Swift would have to keep a target in its sights. The one drawback that the Aden had was its low muzzle velocity of 2,000 ft. per second, which reduced the chance of obtaining hits on rapidly evading targets at other than short range. It was thought that the Aden gun would still be effective in Fighter vs Fighter combat because this usually took place at close range and it was considered that only one hit would be necessary to destroy a Fighter.

It was also considered that the Aden gun would be an effective weapon against the Tuplov Tu-4 Bomber (essentially a Soviet built copy of the Boeing B-29 Superfortress). It had been assessed that a Fighter with four Aden guns had a thirty six percent chance of shooting down a Tu-4 type of Bomber when firing at a range of 1,300 – 200 yards with an overtaking speed of 200 knots, even if the Bomber was firing back with two 20mm guns. If the Bomber was not firing back the chance of shooting down the Bomber went up to fifty five percent when the Fighter fired from 750-200 yards with an overtaking speed of 200 knots.

Between July 1948 and September 1949 the Central Fighter Establishment in conjunction with the USAF conducted a number of tactical trials in order to determine how RAF Fighters might best counter the perceived threat from Soviet Tuplov Tu-4 bombers to the UK as it would appear that the Air Ministry was concerned that should the Cold War turn hot, the RAF would be faced with having to re-fight the Battle of Britain in the face of massed formations of Tu-4s operating in the conventional bomber role.

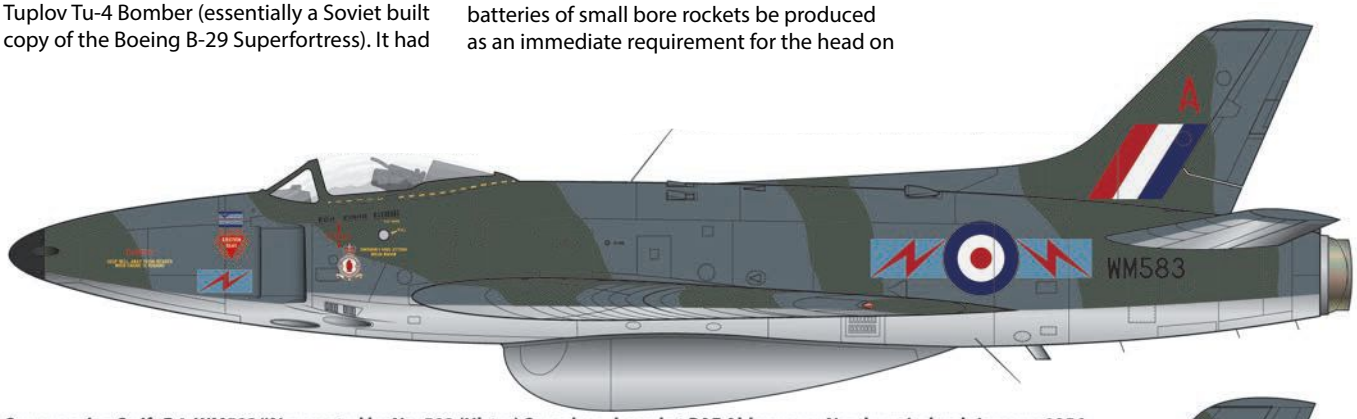
Central Fighter Establishment Report 149 'Many Fighters Against Many Bombers' concluded that the safest and most effective way for RAF Fighters to attack a massed formation of B-29 type Bombers was from the front or high quarter. It was envisaged that the initial attack would be made head on followed by further attacks from the rear. In view of the fact that the primary armament of the next generation of British Fighters was to be a battery of 30mm Aden Cannon and that this armament was likely to be less effective in a head on attack than any other due to the very limited amount of time available to line up and discharge the cannon, two of the recommendations made by the report were that in view of the immense fire power available to formations of B-29 type Bombers, batteries of small bore rockets be produced as an immediate requirement for the head on attack and that development of a suitable long range armament for Fighter aircraft be hastened.

Air to Air Rocket Battery to OR 1092

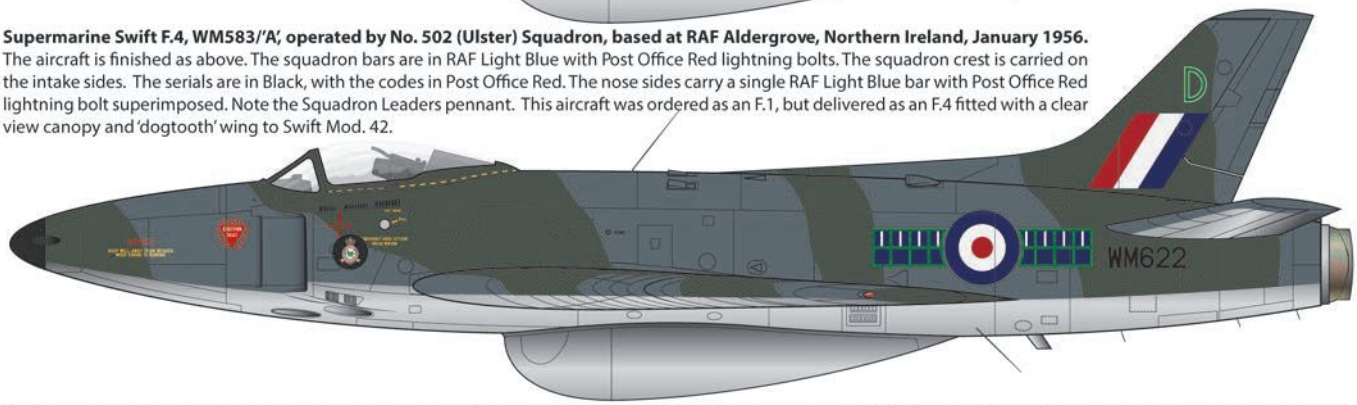
As a result of this recommendation, in October 1949 Joint Naval Air Staff Requirement for an Air to Air Rocket Battery to OR 1092 was issued. This weapon was required for the existing and next generation of Jet Fighters such as the Hunter and Sea Vixen. It was required that the rockets be sufficiently lethal that the target aircraft should be destroyed with the expenditure of one aircraft load of rockets. The weapon was required as soon as possible and the Staffs wanted it available for squadron issue by December 1951. Just over a year later on 15 December 1949 the RAE produced Drawing ARM.37138, which showed the proposed container for the battery, which was to house forty rockets. This drawing has been used as the primary reference for the rocket battery shown here.

Whilst it is possible that if the Rocket Battery to OR 1092 had have been fully developed and deployed, it could have been carried by the Fighter versions of the Swift, following the Soviet development of an Atomic Bomb which was first tested in 1949, the perceived threat to the UK changed from massed formations of Conventional Bombers to a much smaller number of Atomic Bombers. In the light of the change in this perceived threat, the requirement for an air to air rocket battery of this type was dropped in November 1953.

With regard to its colour scheme, it is thought that the Rocket Pod might have been silver with a matt black nose.



Supermarine Swift F.4, WM583/'A', operated by No. 502 (Ulster) Squadron, based at RAF Aldergrove, Northern Ireland, January 1956. The aircraft is finished as above. The squadron bars are in RAF Light Blue with Post Office Red lightning bolts. The squadron crest is carried on the intake sides. The serials are in Black, with the codes in Post Office Red. The nose sides carry a single RAF Light Blue bar with Post Office Red lightning bolt superimposed. Note the Squadron Leaders pennant. This aircraft was ordered as an F.1, but delivered as an F.4 fitted with a clear view canopy and 'dogtooth' wing to Swift Mod. 42.



Supermarine Swift F.4, WM622/'D', operated by No. 612 Squadron, based at RAF Dyce, Scotland, March 1956. The aircraft is finished as above. The squadron bars are in (provisional) tartan colours of Brilliant Green, Roundel Blue and White (the design as recommended by Paul Lucas). The squadron crest is carried on the intake sides, superimposed on an 18 inch Black disc. The serials are in Black, with the codes in Brilliant Green edged with White. Again, this aircraft was ordered as an F.1, but delivered as an F.4 fitted with a clear view canopy and 'dogtooth' wing to Swift Mod. 42.

Airborne Infrastructure

Planet Models GAL-58 Hamilcar-X

By **Andy McCabe**

Kit No: 160

Scale: 1/72

Type: Resin

Manufacturer: Planet Models
www.cmkkits.com

The General Aircraft Ltd Hamilcar was an airborne glider used by the British during World War II to deliver light tanks and armour to the front line during the D-Day Normandy landings and beyond. The Hamilcar was designed to carry either the Tetrarch or Locust light tank and other light AFVs, the prototype first flying on March 27th 1942 and entering service in the same year. The Hamilcar-X was a modified version that featured two Bristol Mercury 31 engines and was designed to enable the aircraft to be recovered by a specially modified Halifax Mk III after it had unloaded its cargo, the engines being used to assist the take-off afterwards.

410 Hamilcars were built, twenty two of these were fitted with the Bristol Mercury engines but unfortunately none survive intact. The Planet Models model of the Hamilcar-X follows their Hamilcar and contains forty nine resin, five white metal, four clear vacform and two white plastic vacform parts, one decal sheet and three A4 sheets of assembly and painting instructions.

The resin parts are superbly cast with no air bubbles and minimal pouring lugs. The white metal parts are also nicely cast with no flash and while the vacform parts are a little thin around the nose cone they present no problem. The decals are nicely printed and the instructions are the same with colour call outs for generic paint colours only and no specific paint manufacturers.

I've been looking forward to this one.

Construction

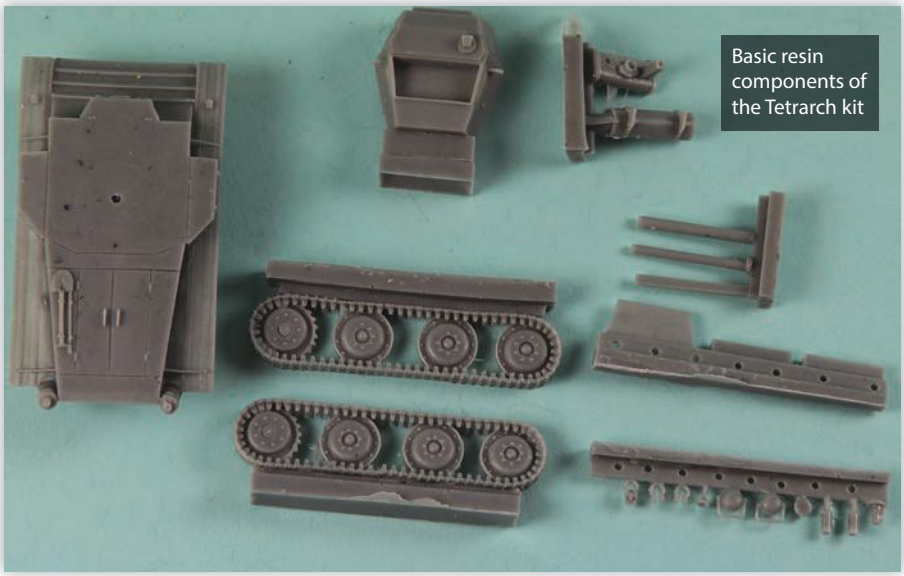
I began by washing all of the resin parts in warm soapy water after which I sprayed all of the interior parts with Humbrol Cockpit Green 78 then applied a Mig cockpit wash, followed by dry brushing with a light green. I then scratch built the cockpit access ladder and fitted the oxygen bottles and wheel guides. These were slightly warped but this was easy to cure by warming them up in hot water and holding them against a straight edge until they cooled down. They were then fitted into the fuselage halves.

All of the cabin windows were drilled out, including the four in the cockpit hatch, and then the two fuselage halves were glued together. The tail fin and tail planes were glued to the fuselage. These are just butt joined so you have to make sure the mating surfaces are flat. The cockpit parts were now sprayed green, detailed, and then fitted to the fuselage opening. The

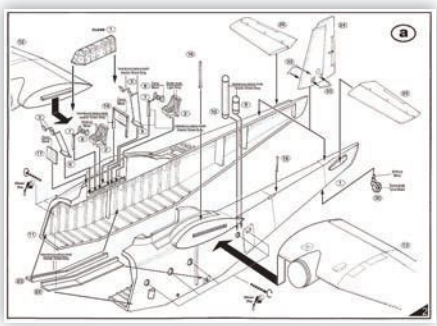
The kit parts as supplied by Planet

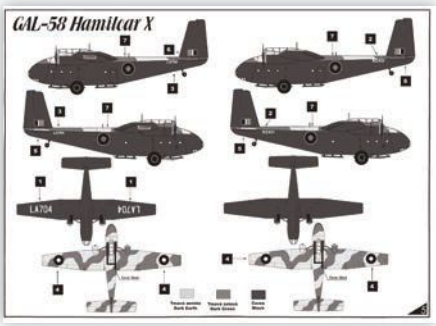
Some good interior detail is present on the resin parts

The Tetrarch Mk VII tank was produced by Vickers-Armstrongs in the late 1930s and attached to the 1st Airborne Division after it was decided that the design allowed its use as an air portable light tank to support British airborne forces. A lack of gliders prevented their participation in the Allied invasion of Sicily in 1943, instead they were attached to the new 6th Airborne Division and became part of the 6th Airborne Armoured Reconnaissance Regiment. The division used approximately twenty Tetrarchs during the British airborne landings in Normandy in June 1944. The tanks were successfully landed by glider but they did not perform well. Several were lost in accidents and those that did see action proved to be inferior in firepower and armour. A few days after the beginning of the operation, the tanks were removed from direct engagement with German armour and used only to provide fire support. By August 1944 most of the Tetrarchs in action were replaced with Cromwell cruiser tanks and the remainder were replaced by the M22 Locust in December 1944



Basic resin components of the Tetrarch kit





KOVOZÁVODY PROSTĚJOV
2015
News from the traditional Czech model kit company.

Kovozávody Prostějov - KP
Nad Vápenkou 364, 250 84 Křenice
Praha východ, Czech Republic
info@kovozavody.cz
www.kovozavody.cz
© 2015 KP

KP model kits are available at all good retailers worldwide.

cockpit canopy is a vacform part and this was carefully cut from the sheet, but there is a spare just in case. The part was then dipped in Klear, masked, and glued into position on the cockpit.

The wings were now fitted, and again these butt join to the fuselage. They are quite heavy as they are solid resin so plenty of glue is required.

The skids were now fitted to the underside of the fuselage and the white metal undercarriage struts added. I drilled the holes out for these firstly, which would enable the undercarriage to be modelled lowered if required, as it would be when unloading the cargo.

The engines were now painted and the inside of the engine cowls sprayed Cockpit Green. The engines were then glued into these and then fitted to the wings after which I gave the models a coat of grey primer and then tidied up any seams that were not nice and clean.

I next cut one of the white plastic nose cones from the sheet and cleaned it up, then removed the area of the nose where the clear glazing was to go. The clear glazing section was removed from one of the vacform clear parts and trimmed to fit the opening in the nose. There is no detail to the interior of the nose so I added ribs and blackout curtains after which the resin nose frame was glued to it, the interior was sprayed interior green, and the blackout curtains matt black. The clear section was now masked and fitted to the nose.

The upper part of the fuselage and nose was sprayed with Mr Color H72 Dark Earth then the camouflage was sprayed on with Mr Color H73 Dark Green. The upper surfaces were masked off and the entire lower fuselage and wings were sprayed with Revell 36106 Tar Black, which is not as dark as standard matt black. The masking was removed and the decals fitted. There are only six of them so they didn't take very long to apply.

Two marking options are supplied with the kit, both have the same Dark Earth/Dark Green/Black colour scheme with the registrations LA704 and RZ431.

Exhaust streaks were sprayed on using Tamiya X19 Smoke and then a coat of FMR Matt Varnish was added on top.

The aerials were fitted on top of the fuselage along with a landing light from a spare clear sprue, which was fitted to the nose, and then the nose was fitted and the model was finished.

To compliment the kit I purchased a MTM Tetrarch Mk VII tank which is entirely made from resin. This is a simple kit but it has no assembly or painting instructions so I had to research the camouflage scheme a little.

Conclusion

This is a very impressive and heavy model when built.

The parts assemble together very nicely and when finished the model captures the looks of the Hamilcar perfectly. These kits are not cheap however but if you want a scale model of the Hamilcar-X then you have few other options. There is a vacform kit available by Sanger but these kits require far more work than a resin kit though they are cheaper.

The Hamilcar along with the Horsa glider played key roles in the Normandy and Arnhem Landings during World War II and are an important part of our military history. I have the Italeri Short Stirling glider tug already made and the Horsa glider in my pile of kits, along with the Revell Halifax, which I intend to make into the glider tug. Planet's Hamilcar is a significant part of this collection. I enjoyed it immensely and am grateful to Special Hobby for supplying the review kit.

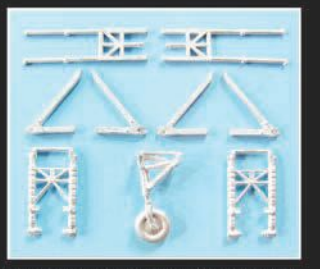
Scale Aircraft Conversions

9873 CR 2469 Royse City, Texas 75189

32101 P-39 Airacobra Landing Gear (KH)
replacement for 1/32 Kitty Hawk
MSRP $18.95

72112 Bristol Bombay Landing Gear (Val)
replacement for 1/72 Valom
MSRP $16.95

72113 C-54/DC-4 Skymaster Landing Gear
(Rev) replacement for 1/72 Revell
MSRP $17.95



72114 Bristol Beaufighter Landing Gear (AX)
replacement for 1/72 Airfix, 2015 mold
MSRP $14.95

White Metal & Resin Aircraft Parts Since 1990

scaleaircraftconversions.com

THUNDERBIRD MODELS

www.thunderbirdmodels.co.uk

Producers of high quality screen printed civil aircraft decals.

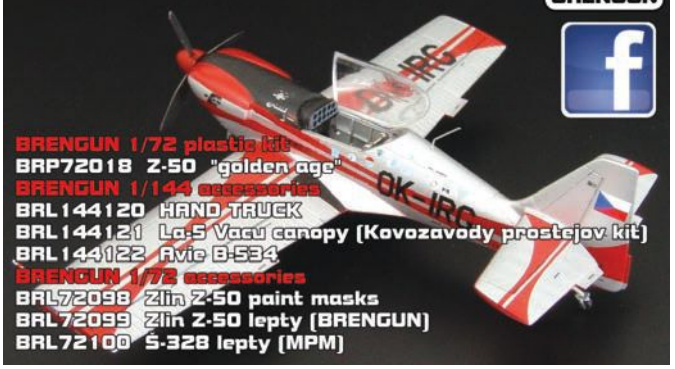
Stockists of kits, paints, tools, decals, accessories and modelling materials.

Shipping to the UK and the rest of our little blue planet.

contact@thunderbirdmodels.co.uk

www.BRENGUN.cz

BRENGUN



BRENGUN 1/72 plastic kits
BRP72018 Z-50 "golden age"
BRENGUN 1/144 accessories
BRL144120 HAND TRUCK
BRL144121 La-5 Vacu canopy (Kovozavody prostejov kit)
BRL144122 Avia B-534
BRENGUN 1/72 accessories
BRL72098 Zlin Z-50 paint masks
BRL72099 Zlin Z-50 lepty (BRENGUN)
BRL72100 S-328 lepty (MPM)

WARPAINT BOOKS

Much loved series out of print can now be ordered ON DEMAND

PRINT ON DEMAND TITLES AVAILABLE NOW

1. Beaufighter	19. DH Hornet	43. F-104 Starfighter
2. Buccaneer	20. Seafire (Griffon)	44. Venom
3. Ju 87 Stuka	22. Gloster Meteor	45. B-57 Canberra
4. F-100 Super Sabre	23. Fairey Gannet	47. F-101 Voodoo
5. Hawker Typhoon	24. Dornier Do 217	48. Lysander
6. Avro Shackleton	25. Short Sunderland	50. Beaufort
7. Junkers Ju 88	26. Bristol Blenheim	51. Lockheed Neptune
8. Hawker Hunter	28. Fairey Firefly	52. Albacore
9. F4F Wildcat/Martlet	30. Avro Vulcan	53. Anson
11. DH Sea Vixen	31. RAF/RN Phantoms	54. Whirlwind
12. Fairy Swordfish	32. Boston/Havoc	57. Hampden
13. Fw 200 Condor	33. Heinkel HE 177	59. Lockheed Hudson
14. BAC Lightening	36. Handley Page Victor	61. S79 Sparviero
15. Short Stirling	38. Thunderchief	63. Valiant
16. Hawker Sea Fury	39. Walrus	65. Wessex
17. Gloster Javelin	40. Canadair Sabre	67. Gnat
18. Douglas Skyraider	42. Defiant	72. Seafire Merlin

WARPAINT BOOKS LIMITED

Unit 3, Enigma Building, Bilton Road, Denbigh East, Bletchley, Bucks MK1 1HW
Telephone: +44 (0)1908 270400, Fax: +44 (0)1908 270614, Email: kim@regallitho.co.uk

For prices, details of availability and secure ordering

www.warpaint-books.com

All major credit cards accepted. Orders can be placed by mail, telephone, fax or through the website.(www.warpaint-books.com) Plus postage on UK orders. Overseas readers pay postage at air mail printed paper rate.

Subscription Agent for the USA and Canada

15 ISSUES FOR ONLY $127
30 ISSUES FOR ONLY $240

TO RENEW OR START YOUR SUBSCRIPTION NOW AND PAY IN $. CONTACT OUR AGENT LARRY.
Order Hotline: 717-685-5207

Payments made by cheques in **Dollars** must be made payable to

Larry Weindorf
c/o For the Historian
42 York Street,
Gettysburg, PA 17325
info@forthehistorian.com
www.guidelinepublications.co.uk

RIAT Inspiration

Part Three – Fast and Furious

By **Mike Verier**

No RIAT would be complete without fast jets. With many of the dwindling numbers of airframes away on operations there were perhaps less than in the past, but there was no mistaking their ability to convert paraffin into thunder as the designated display machines roared around the sky demonstrating agility only dreamt of in the past.

The Finnish F-18 provided one of two demonstrations by operational aircraft, the other being the French RAMEX pair of Mirage 2000s whose welded together close formation manoeuvring was particularly impressive.

Between the smoke and fury came Spitfires and Hurricanes as the 75th anniversary of the Battle of Britain was properly remembered. Slipped in amongst them were two Messerschmitt 109s, and one of those had a Merlin engine.

As ever grateful thanks to the team at RIAT Press Office for access and assistance.

Winning the prize for the most distinctive special scheme the Zeus F-16 complete with conformal fuel tanks showed that the aircraft remains a formidable fighter

One for the modellers. Whilst the top of the Greek F-16 was newly applied and immaculate the underside showed all the wear and tear of operational use. Note where the pylons have been removed

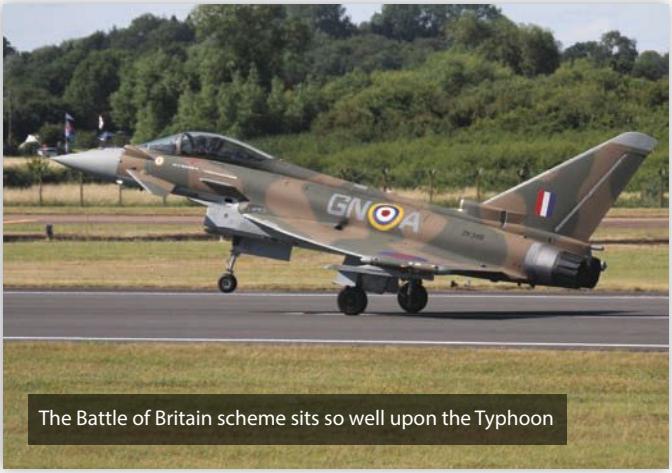
Again an old type the Mirage 2000N nevertheless remains a threat to be reckoned with. These aircraft are configured for Nuclear Strike

The Finnish F-18s are legacy F-18C models but they work hard

Finnish F-18s again. Note the gun smoke stains and the big light in the nose (also fitted to Canadian Hornets) used to fly alongside and identify intercepted aircraft

The Reds remain the Gold Standard for display teams – they also apparently control the weather…

Fast Jet and Spitfire – the RAF commemorative pairing of Typhoon and Spitfire is an impressive demonstration of aircraft development over nearly four decades



The Battle of Britain scheme sits so well upon the Typhoon

The contents of the Royal Boxing with Vodka glass and chunk of MiG

A family gathering of MiG-15s

MiG-15bisSB, the underside displaying a full load of bombs and drop tanks

MiG-15 flown by Lt. Jaroslav Sramek, 2 Squadron, 5 Fighter Regiment, Plzen-Line AB, late March 1953

Silver Service

Eduards Mini MiGs of Many Colours

By **Colin 'Flying' Pickett**

Kit No: 2113/ R0011

Scale: 1/72

Type: Injection Moulded Plastic

Manufacturer: Eduard
Hannants/Creative Models/ Squadron/Sprue Brothers
www.eduard.com

The diminutive MiG-15 had a long service life, from the 1950s until the early 1980s, spanning from the original fighter via the uprated Bis and SB ground attack through to the two seat UTI trainer. The MiG-15 also became an enviable export success, seeing service with every Communist and Soviet aligned nation as well as many African nations as well, though the success wasn't just about sheer numbers either as it was a capable adversary in the early part of its career, proving its worth against many of the Western world's best machines, the F-86 Sabre being one such of note.

There are several kits of the MiG-15 about in 1/72. The old KP boxing which is incredibly basic with raised panel lines is probably best left to the masochistic or the collector. The new Airfix kit has some size issues but builds into a neat model (we won't mention the old kit which was barely better than the KP kit), while the HobbyBoss kits are fine for a speedy build if a bit basic. This leaves us with the Eduard kits, which really are the MiG-15 connoisseur's kit of choice. As is common with most of Eduard's range their MiG-15 comes in three flavours of kit, the bare bones Weekend, the more advanced Profipack, or the Quattro Royal boxing with four kits in it. This is also joined by the limited run *Československé Patnáctky kit* focused on the MiG-15's Czechoslovakian service.

Though expensive at first glance the Eduard Royal boxing of the MiG-15 actually proves to be good value if you intend to build a good number of the type as the box itself contains the equivalent of four Profipack kits as well as additional resin goodies.

I also had a small pile of Brassin and resin extra parts to add to my models:
MiG-15 air brakes #672021
MiG-15 cockpit #672022
MiG-15/ MiG-15bis exterior #72575
MiG-15bis cockpit #672024
MiG-15bis air brakes #672020
MiG-15 fuel tanks 300l #672068

Having lined up a number of different boxings of the MiG-15, I proceeded to rifle my archives and pull out the books I found to be the essential references on the type. Chief among these was 4+ Publications' *MiG-15* by Yefim

The Brassin air brakes in position, displayed as seen on most MiG-15s

Note the kill marking underneath the canopy, the walkway comes from the exterior detail set from Eduard

MiG-15bis s/n 623766, FAG 2 Training Regiment, Trollenhagen Air Base, German Democratic Republic, 1956

Gordon, Jiri Basny, Michal Ovcacik & Karel Susa, which covers all of the variants of the type and includes a very useful set of line drawings, which helped to clarify a few points to me and are considered the most accurate variable. Also invaluable was Mushroom Models' *Mikoyan Gurevich MiG-15* by Dariusz Karnas, now in its second edition.

Construction

Construction starts in an unpredictable manner in the form of a sit down with a cup of tea and the instructions, as it was important to decide which versions and decal options I wanted to make as there are a number of small variations in parts between each aircraft. The actual choice of which aircraft I planned to model was decided by two factors, the first being the versions I could build from the kit and those mainly left in a natural metal finish as I wanted to have a good try at Vallejo's Metal Color range of acrylic metallic paints.

Having made the vital choices and brushed away the biscuit crumbs, I then moved on to pre painting and sorting the parts out into separate plastic tubs, one for each model.

One choice I made early on was to have one MiG-15 and one MiG-15 Bis as more detailed models to put on a diorama base later on. These two models would have the bulk of the Brassin parts used on them. The basic kit cockpit will be perfectly acceptable to most and fits together with typical Eduard quality engineering, but the Brassin cockpit is a step above again, the level of detail being more akin to something you would expect to find in a 1/48 kit rather than its smaller brethren. Whilst I found that a small amount of fettling was needed to get a perfect fit, it was well worth the effort.

Nose weight is a must as the MiG-15 is a tail sitter of the most enthusiastic kind, so I filled up every possible void in the nose of each model with some Deluxe Liquid Gravity fixed in place with liberal application of superglue. There were no issues to report as the engineering of the kit is pretty much perfect with the filler being left in its spot on the bench unused. All that you need to remember is to open up the holes in the wings should you wish to add pylons or the various drop tanks provided or from the Brassin range.

I also added air brakes to two of my models which involves carefully cutting out the appropriate indentation on the inside of the fuselage halves before lining the

MiG-15bisSB, 30 Fighter-Bomber Regiment, Hradec Kralove / Pardubice Air Base, Czechoslovakia, 1970s

UTI MiG-15, 1 Fighter Regiment, 2 Squadron, Plana Air Base, Czechoslovakia, summer 1969

Another Czech Air Force option displaying a nice variation on the usual bare metal

UTI MiG-15, 1 Fighter Regiment, 2 Squadron

MiG-15bis, 20 Squadron, based at either Deversoir, El Qabrit, or Inshas airbases in Egypt as part of the United Arab Republic Air Force during the late 1950s/early 1960s

It's all in the trim. The collection is made all the more interesting by neat but subtle variations to the colour schemes

MiG-15, 1st Fighter Division, Ruzyne airport, September, 1955

UTI MiG-15 s/n 612739, flown by Yuri Gagarin/Vladimir Seryogin, Space Training Centre, Chkalovskiy Airfield, Soviet Union, 27th March 1968

edges with etch brass formers and adding an etch brass back plate. I have to admit to finding the process a little trying but the results were acceptable, especially as most MiG-15s sit with their air brakes dropped slightly open on the ground as the pressure drops in their hydraulic system, so any errors I made were hidden by the air brake.

Painting

The Royal Class boxing of the MiG-15 offers a massive eighteen different decal options across the various versions included in the kit and cover the type's service from its introduction in the 1950s through to its retirement in the 1980s. Certainly if you were to dedicate yourself to the project it would be easy to lose a couple of years modelling the various air forces it served with.

Added to this, I had the initial Eduard boxing of the MiG-15 in the form of the Československé Patnáctky release, which focuses on the aircraft in Czechoslovakian service and contains parts to make two kits of either the MiG-15, MiG-15bis, MiG-15SB or MiG-15bisSB. This kit also contains a further eleven decal options.

After the MiGs were completed, sanded, and the plastic polished to the best shine I could muster using increasingly fine grades of polishing pads, I dusted them off with an air hose and then carefully applied a series of coats of Vallejo gloss black primer (#77.660) to provide a good base to work from. This offers two benefits when working with metallic finishes. Firstly black is a finish that shows up every possible paint defect, speck of dust, or indeed dog/cat/rabbit hair that may have got stuck in the paint. Secondly it gives depth to the following metallic coats. After carefully sanding back any defects, polishing the surface as outlined above and dusting the surface again I applied a final black coat and left this to dry.

Next up came a series of very light coats of Vallejo's Metal Color Aluminium paint (#77.701) applied by airbrush at low pressure, with 12-15psi being about right. The paint is supplied airbrush ready being of the correct dilution to spray directly from the bottle if you want, however should you choose to dilute it further it can be diluted using Vallejo Airbrush Thinner. The MiGs received a series of coats of paint until an even finish of the right depth was completed on each airframe.

After the aluminium had been left to dry for a twenty four hour period I proceeded to mask off the various panels and areas that are finished in different colours of metal using Dark Aluminium (#77.703), White Aluminium (#77.706) and Steel (#77.712) based on various reference pictures of MiG-15s in service.

Some of the MiGs needed additional masking and coloured areas adding depending on their specific schemes, which I added using various paints from the Vallejo Model Air range.

For the aircraft in this article I ended up using five options from the Royal Boxing and three from the Czech issue.

A coat of Gloss Metal Color varnish then sealed the surface to protect the decals. It's worth noting that Vallejo do strongly recommend using the specific gloss varnish for the Metal Color range to avoid problems with cloudiness on the surface of the metal finish and the Metal Color varnish (#77.657) is especially formulated to avoid this problem.

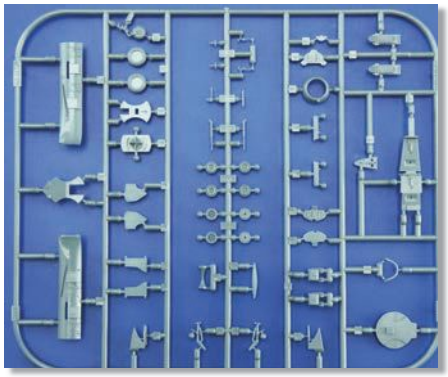
I then lightly airbrushed the various panel lines with a thin coat of light grey to highlight them, before a wash of Vallejo dark grey was used to bring them out further.

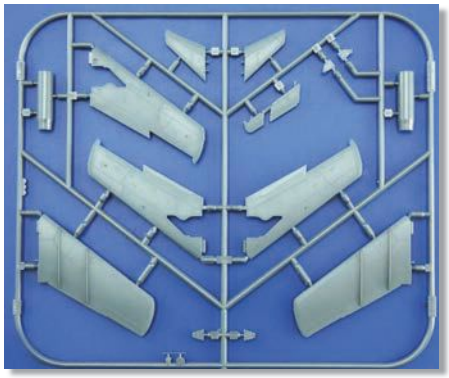
Finishing

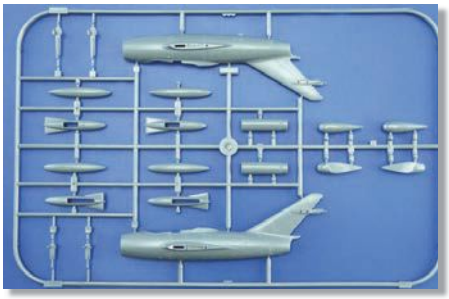
The final details came next. Detail painting first, then those more fragile parts with the addition of undercarriage. The various aerial fitments were carried out dependant on the individual aircraft type with the actual wire being formed from Uschi Rig That Thing standard thread fixed to small wire pegs fitted in pre drilled holes on the rudder and fuselage. I also added navigation lights to the wing tips from CMK's resin set, and landing lights as appropriate to the opening in the underside of the starboard wing using Little-Cars 2.5mm light lenses.

Conclusion

The MiG-15 is a landmark in terms of classic aircraft design and it is great to have an accurate kit of the type available. Eduard's kit is a simple but well detailed model that makes a multiple build project such as this a charm to do. Needless to say, as the decal options from both kits are tremendous I'll be revisiting the Eduard MiG-15 range to build a few more as well. The Vallejo Metal Color paint certainly made getting a suitable metallic finish a simpler undertaking than it has been in the past, and cleaning up afterwards wasn't the chore it normally is as the paint is an acrylic, so I can see an even greater number of silver aircraft being produced from my workbench in the future.







HPM HOBBIES
HIGH PLANES MODELS
ENAER
MIRAGE 50CN PANTERA 1:72
Fuerza Aérea de Chile
NEW RELEASE
HPK072103
www.hpmhobbies.com
UK: www.freightdogmodels.co.uk
CAN: www.westcoasthobbys.com
IT: www.misterkit.com
NL: www.aviationmegastore.com
AR: www.hobbieslc.com.ar
JP: www.wiling-hobby.com

MUSTANG HOBBIES
Your #1 Source for Current & Out of Production Plastic Model Kits!
Mustang-Hobbies.com

New & Collectable Model Kits
Supplies
Dean's
Hobby STOP
We Buy Model Collections
116 N. WASHINGTON ° OWOSSO, MI 48867 ° 989-720-2137
www.deanshobbystop.com
e: dean@deanshobbystop.com

RS MODELS
1:72 AIRCRAFT MODELS
U Lomu 7, 795 01 Rýmařov
Czech republic
email:rsmodels@rsmodels.cz
www.rsmodels.cz
SEE OUR NEW PAGES - NEW E-SHOP!
92177 Heinkel 280 As 014
92178 Caudron 445 France
92185 Avia 534 I. version
92171 Caudron 445 France
92180 Ki-61 I. Hei
92174 Caudron 445 Luftwaffe
92172 DFS-230 C
NOVINKA! NEW!

Feeding your Dragon Part 13

By Show Dragon

Show News

Things have gone a little quieter this month as they often do in the period between the buying frenzies that are Scale ModelWorld and Christmas, traditionally the show closed season allowing everyone to recuperate from one excess and prepare for the next. However there is some news.

Firstly the Essex Model Show, unfortunately announced too late for inclusion in the show listing last month, has announced its date as Sunday 24th July. This is a fairly recent joint venture between four model clubs (IPMS South East Essex, IPMS Hornchurch, IPMS Chelmsford and MAFVA Essex) and the venue, as in previous years, will be Hannakins Farm Community Centre, Rosebay Avenue, Billericay, Essex, CM12 0SZ. Secondly you may have noticed from the listing last month that Stoke-on-Trent Model Club have moved their date for a third and final time to Sunday 20th March and are likely to stay with this slot i.e. they will be the same weekend as Southern Expo in the future. The venue remains unchanged. The organisers believe that holding their show the same weekend as Southern Expo will afford them some protection from other larger and closer shows which seems to Show Dragon to be pretty clever reasoning. Let's hope it proves to be the case.

The seventh annual Shuttleworth Collection scale model exhibition is slightly earlier this year on Sunday 28th February to avoid clashes with other local shows. As in previous years the display tables will be in the heated hangar amongst the flying machines, and there will be reduced price admission on the day which makes it all a bit of a bargain for a nostalgia filled trip out. Another relative newcomer to the show scene, the REME Museum of Technology, which covers the history of the Corps of the Royal Electrical and Mechanical Engineers, will not be having an event this year. This is due to a move from its current location near Reading to a new home at RAF Lyneham in April. Model shows at RAF Lyneham seem like a good idea so roll on 2017!

So You Think Exhibitors Just Turn Up? Part Two

Having taken a break for a couple of months to explain the particular preparations a club has to make for Scale ModelWorld and then provide a diary of show events for 2016 it is now time to resume normal service. *Feeding your Dragon* is looking at shows from the exhibitors' point of view with a countdown from T-365 days, and had got as far as assuming the exhibiting club had decided which shows it was attending over the following year. Show Dragon knows there is probably an infinite number of ways for a club to decide which shows it will attend, from the club secretary deciding unilaterally, through simply booking the same shows as were attended last year, to the members of the club deciding in some semi democratic way which shows they would like to attend. All have their vices and perils as will become evident in future columns, but each club will have its own way of working regarding this matter. It must be said however that the recent trend both on the web and in print of the provision of show listings, such as was published in this column last month, has undoubtedly made such planning easier and more transparent. Show Dragon can remember that not so long ago it was not uncommon to see publicity for a show or receive an invite barely a month, or so before it occurred.

So whatever the decision mechanism, it will be left to the club secretary to secure space at the chosen show(s). Now depending on various factors this can occur at anything between T-365 days right up to T-1 day. Quite often now booking forms for next years' show are handed out during the final few hours of the current show allowing clubs potentially to secure table space for the ensuing year. It is also usual for clubs that exhibited at a show to be sent booking forms for next year and offered first refusal on space to exhibit. There is normally a time limitation on this, allowing the organisers subsequently to offer any remaining space to clubs and traders on a waiting list (as the larger shows in particular tend to become oversubscribed) and then finally become open, allowing anyone to apply. Organisers are not always sufficiently resourced to offer this level of service, with the two other ends of the spectrum being an assumption that an exhibitor will appear again next year, through to everyone being put on the same footing and having to make an application once publicity for the show appears. Whatever the mechanism the club secretary has to have their wits about them, to ensure the appropriate bookings are made if they are not to incur the wrath of the club members and/or even be deselected! This will include the chasing up of applications to ensure the request was received and accepted as well as the space to be allocated.

Hopefully the club membership will be regularly updated on progress with bookings at their meetings and/or by other means e.g. a round robin email. And then at the other end of the scale (T-1 day) Show Dragon is aware of some clubs in exceptional circumstances contacting a show organiser the day before to ask if there is any space and can they exhibit?

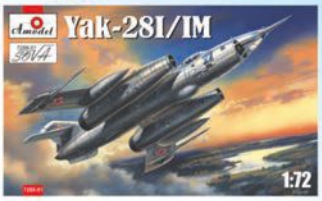
Next month normal service will be continued as we start to look at the preparations required by an exhibiting club in order for them to put on a jolly good showing.

If would like to contribute a point of view or contact Show Dragon then this can be achieved through a dedicated email address: showdragon@gmail.com

What could be better than exhibiting amongst the treasures of the Shuttleworth Collection?

Xanadu! Club attends show, the table is full and the club secretary can see all is well

Amodel



Worldwide distributor: IBG Models
2, Benedykta Hertza Street, 04-603 Warsaw, Poland
tel.: +48 22 815 91 50 - e-mail: ibgsc@ibg.com.pl

available in UK: HANNANTS LTD and all good model shops

IBG MODELS

IBG Models
2, Benedykta Hertza Street, 04-603 Warsaw, Poland
tel.: +48 22 815 91 50 - e-mail: ibgsc@ibg.com.pl

available in UK: HANNANTS LTD and all good model shops

REBELL HOBBY

Rebell Hobby, Box 2006, SE-16902 Solna, SWEDEN
www.rebell.com Tel, +46 8 825206 max@rebell.com

OLImodels™

Large selection of classic & new:
- aircraft, armor & figures kits,
- resin conversions & detail sets,
- books, paints & other supplies.

1-703-594-7934 **shop@olimodels.com**
www.olimodels.com

KINGKIT
NEW ADDRESS
Kingkit, Unit 8 Cedar Court, Halesfield 17,
Telford, TF7 4PF
Tel: 01952 586457

"Due to the continued success of our new web site we are looking to buy all types of second hand models, accessories and related books..... Please contact us for a quote"

www.kingkit.co.uk

THE ORIGINAL KIT DEALER (Est. 1983)

WE BUY AND SELL PLASTIC KITS ANY SUBJECT - ANY SCALE ANY MANUFACTURER ALSO BOOKS, PROFILES AND BACK ISSUES OF SAM

GINTER BOOKS:Navy/Air Force
Tel: (805) 584-9732 Fax: (805) 584-6604
1754 Warfield Circle, Simi Valley, CA 93063
www.ginterbooks.com

NFAF218	Lockhead F-94 Starfire	$39.95
NAFA217	Curtiss XP-55 Ascender	$24.95
NFAF216	United States Air Force in Vietnam	$39.95
NF96	Consolidated P2Y Ranger	$32.95
NF97	Martin PBM Mariner	$52.95
NF98	Douglas AD/A-1 Skyraider Part 1	$52.95
NF301	Black Knights Rule	$49.95

Buying & Selling Kits?
Call Collectakit on:
01932 840766 pm only
E-mail: collectakit@hotmail.com

IPMS (UK) Column

Presented By **Chris Ayre**

Looking forward to it…

If you know anything at all about magazine publishing deadlines, you won't be particularly surprised to learn that, despite February being printed on the front cover, I'm actually writing this in the days just before Christmas. I mention this because I really should be letting you know about upcoming model shows, how you can get more involved with IPMS, and perhaps even mentioning the odd air show or two - and I will get around to those things… At the moment though, I'm up to my eyeballs in wrapping paper, realising that I've forgotten to send a card to somebody quite important (guess how I was reminded) and wondering if any of my relatives has decided to buy me a model this year. The latter point can be a bit of a sore one - I'm sure some of you will have been there… You can just tell from the feel of the present that it's a kit and you don't want to appear disappointed if, when you open it, it turns out not to be the latest, beautifully-crafted Czech superkit but a re-re-reboxed, re-re-reissued 1960s horror. The new packaging makes it look great, of course, and your well-meaning relative knows that you like 'making model aeroplanes' and so, if this does prove to be the situation, you force a smile and say 'thank you so much…,

Now, this leads me to one of the great dilemmas of being a modeller. Will they expect to see the finished article next time they visit? Quite possibly. I mean, it wouldn't be so bad if it was a subject that you're actually interested in. So, do you build the unfortunate gift? Or is it rather more likely that you will build the other kit you got for Christmas… you know, the one addressed 'To Me, from Me'? After all, many of us learned long ago that, since friends and relatives don't understand our hobby, the best way to get what you really want for Christmas is to buy your own present. Hands up if this sounds familiar? The safest solution is, of course, to build both - but then you need to be a 'proper' modeller, one who actually gets on with putting kits together!

All of the above waffle, typical of me, is inevitably leading to the question of whether or not you have actually built whatever kit(s) you did receive? Now, despite that February cover date, there's a good chance that you are reading this in January, so you may not yet have completed your model (although I have heard that some folks can actually build quite quickly). If, however, you have - or when you do - how about taking a few photographs and letting us see the result of your labours? It's 'good to share' and I'd be happy to receive pictures sent to me here at SAM - but even better would be for you to send them to IPMS Magazine. The editor of the Society journal, Don Carrick, is very keen to encourage Members to get more involved and has introduced a Members Models Gallery specifically so that we can publish YOUR pictures of YOUR models. It is very pleasing to see one's work in print and I certainly enjoy seeing what my fellow modellers have been up to. And here is another idea - if you're still building (or haven't yet started), why not put pen to paper and write about your experience of putting the model together? Take photos along the way and before you know it you will have a build article ready for the mag. Contributing to IPMS Magazine is a great way to gain experience of writing for publications - just ask some of the respected, established authors and editors currently populating the commercial modelling press. Many of them cut their teeth on the Society magazine - and several of them still contribute articles to it. Don's contact details can be found

The latest issue of IPMS Magazine includes coverage of Scale ModelWorld 2015

The IPMS (UK) Bomber Command SIG usually puts on a good display at Huddersfield (Chris Ayre)

alongside his editorial in the IPMS Magazine. Go on, you know you want to!

Showtime

As you may already have noticed, 2016 is already looking like a busy year for model shows. Despite a few previous problems with clashing dates (most traders can't be in two places at once) it would appear that there are more events planned than ever before. Whilst this might seem like a good thing in principle, I do think that where there are several shows located within a fairly small geographical area (especially if the dates are also close together) it might well be worthwhile for the organisers to speak to each other. One large show may attract more paying visitors than two or three smaller ones and is probably also more likely to attract the larger traders, particularly those that travel some distance to trade. Having said that, there is of course a place for small local shows with local clubs and traders, serving a smaller 'clientele'. These events are particularly welcome in the more remote areas of the country, where the local model shop may not exist - it's just that these are a different kettle of fish to the larger regional shows.

Anyway, to February… and whilst the first two weeks are fairly quiet, the second half of the month includes a couple of shows on the same date. Luckily, these aren't particularly close together! First up is one of the more commercial events - Model Market 3 is being held at Hanslope Village Hall, Bucks MK19 7NZ on Sunday the 7th. Consisting mainly of traders, plus some local club displays, the show is open from 10.00 until 16.00. Admission is just £1.00 (free for accompanied under 16s). See www.facebook.com/groups/smallspace/ for more details.

The weekend of 20th - 21st sees two major events, beginning on the Saturday with the Fleet Air Arm Museum's Spring Model Show set alongside RNAS Yeovilton in Somerset. Now call me a pedant but, as February is actually in winter, I think that the FAAM is jumping the gun somewhat with their show title but be that as it may, this is, by all accounts, a great model show and is held within the museum, with displays set up in and around the full size exhibits. There is plenty more going on too and doors open at 10.00. For more details, take a look at the museum website, www.fleetairarm.com, where you can also buy advance tickets at a reduced rate.

The well-established Huddersfield Show takes place the following day and, at long last, is located in a new venue… This is something that has been promised for several years and the new Huddersfield Leisure Centre is finally complete! The address is Spring Grove Street, HD1 4BP and the show is open from 10.00 to 16.00. This location isn't too far from the previous one and I'm not sure what the parking situation is but further details can be found via the event website at; www.huddersfieldshow.co.uk

Both the North Devon Model Show and the Shuttleworth Scale Model Exhibition take place on what would be the last day of February, were this not a Leap Year! Sunday 28th is the date for these two excellent events, the first being held at Fremington Village Hall, Barnstaple EX31 3BG with doors opening at 10.00am. Organised by North Devon Model Society, the event this year has an Airfix-sponsored Make'n'Paint (with special entry into the competition for 'early birds') plus a variety of club and trade exhibitors. Further details should be available from the dedicated show email address show@northdevonmodelsociety.co.uk or via the Society website www.northdevonmodelsociety.co.uk. Next up (and listed second only because I don't know what time the doors open) is the Shuttleworth event. This is the seventh annual Shuttleworth Collection Scale Model Exhibition and, as usual, exhibitors and traders will be located in Hangar 1. Reduced admission prices will allow visitors to view the Collection and the model show and refreshments will be available within the restaurant. The event takes place at Old Warden Aerodrome, Nr. Biggleswade SG18 9EP and the Collection website has more details - www.shuttleworth.org

Next month should be 'interesting' as I currently have very few details of model shows in March. Perhaps news will yet filter through but, just in case, I have decided to hold over details of airshows until the next issue. Suffice to say that 2016 is a Farnborough year, which may mean we will actually get to see certain new aeroplanes in the metal (and carbon nanotube reinforced polymer composite) at long last.

As ever, until next time, enjoy your modelling.

Chris

www.ipms-uk.co.uk

Membership enquiries: Abigail Brewin, 144 High Road, Weston, Spalding, Lincolnshire PE12 6RA

or email: membership@ipmsuk.co.uk

Show Report

The Annual Vancouver IPMS show was recently held at the Bonsor Center in Burnaby, B.C. It is a strategic central location and attracted a good crowd of modelers, enthusiasts and vendors. The standard of competition entries was again first class and covered everything from World Wars One and Two to current Sci-Fi subjects. A number of the 1/24 Airfix Typhoons were present and some very well executed and imaginative dioramas as well as some wonderful biplanes. The show is becoming ever more popular in this the Golden Age of plastic modelling.

Mike Tate

HARROGATE MODEL CLUB

Hawk, Spit, Stick the Shovel In

By **Gary Hatcher**

This is the first build brought up to the painting stage. The kit goes together nicely with just a little filler in the usual places

Masking up the main canopy. All the transparencies fit nicely and the internal blast shield has good positive locating points that ensure a painless assembly

BAe Hawk T.1 Red Arrows
Kit No: 04921
Scale: 1/72
Type: Injection Moulded Plastic
Manufacturer: Revell GmbH
www.revell.de/en

Back along, a certain editor of this parish was building BAe Hawks, in fact the first model he successfully finished on returning to the hobby was Italeri's Hawk in 100 Squadron colours using Xtradecal's set 72031, and on the strength of this success he built another eight by assorted brands, as well as a Matchbox Hawk 200. This was around 1998 and while both Italeri and the then current Airfix boxing had much to offer they were neither perfect. Zip forward seventeen years and here we are again. This time it's a brand new kit, a much more recent Xtradecal sheet, hopefully a little more technique, and what looks to be an almost effortless build from the box…

Revell's new kit seems to have crept up under the radar but is none the worse for that. Last month I was pleased to have a look in the box and needless to say the kit is not finished yet but it has progressed to a point at which I can outline the salient points of the build with some authority. It has gone together very well, in fact both of them have, and only the usual dictates of time and revised editorial schedules have prevented a finished result in this issue.

Work starts with the cockpit but only in as much as the tub is fitted into the starboard fuselage half. The design of the kit is such that the interior can be finished after the main assembly has been completed and in the interests of getting on with the job and avoiding as much debris getting into a finished cockpit as possible this I elected to do, building up the entire airframe apart from the windscreen and canopy before even looking at the cockpit parts.

There are a few matters that crop up during assembly, so I will call them out here:

1. Nose weight. Don't forget it – plenty of space under the cockpit floor or on the back of the cockpit bulkhead
2. The jet pipe is very thin and can easily be damaged by too zealous a use of cement when you add it to the fuselage half
3. There seems to be an oversight with the fin fillet. The kit part represents the early short fillet which is not appropriate for a 2015 Red Arrows Hawk. Both decals and ejection sheets are for a later machine. It is easy to extend the piece with a slice of plastic card and some filler if you intend making a later machine
4. The wing leading edges have the tabs moulded on and sparing use of cement is again recommended here so as not to melt them. I used a quick brush of liquid poly and the leading edge tidied up nicely
5. Sprue gates on the wings and tailplanes are huge. I used a razor saw and they separated cleanly and painlessly
6. Having built two kits I found I got a better fit adding the intakes after the wing assembly. Still needed a little filler around the join but nothing I would not have expected
7. I put a small piece of card under the lower rear wing–fuselage joint on the second kit I built as the wing otherwise sat too deep leaving a small step at the bottom and a visible misalignment at the upper wing roots
8. The single biggest issue I found on this kit is

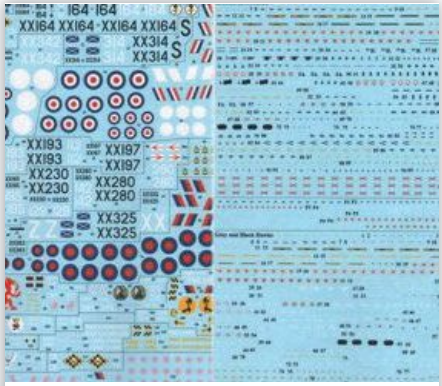
This is the extended tail fillet. A plastic shim was added to the kit part and faired in with a little filler

The kit provides only the early short fin fillet. This is not appropriate for the 2015 Red Arrows scheme provided. The parts are included on the small insert sprue with the smoke pod and dye pipes and their inclusion is presumably an error

The blast shield has been fitted into the main canopy. White sealant will be added from strips of decal. The fit and look of the parts is excellent

Canopy and blast shield in situ. Seats and other cockpit details are still to come

The second build. This demonstrates the extent of construction possible before any work needs to be done on the cockpit



The decal sheets provided by Hannants in their package X72169. This includes full colour instructions and a mass of stencilling as well as thirty eight individual aircraft options

the air brake. It is designed to fit in the open position and needs some very delicate trimming to get a passable fit closed. Wise men ('Flying' Pickett) advise me that it is usual to see the Hawk with its drawers open but I like to preserve an integral airframe and always close these things up. As I had bodged the first kit I simply filled it all flush and re scribed the door. I took more care on the second build and it only needed a little tidying up. Of course you may want it open in which case you will probably avoid all the faddle

9. There are a number of bumps and aerials moulded with the fuselage halves. I removed these when cleaning up the fuselage join and will replace them all at the end of the build with the thinnest card I can find
10. The plastic is red. Of course. It is a nuisance but it's not a deal breaker
11. The rear fuselage insert has holes for the Red Arrows smoke-dye pipes. I simply filled over this taking care not to damage the delicate tail pipe any further

With the airframe built and tidied up I added the front instrument panel and coaming. These were both painted and finished to allow me to add the windscreen. The rest of the cockpit was ignored for now. I soaked the windscreen in Klear and superglued it over the coaming, fairing it in with Humbrol filler. Fit is excellent and with this masked up and the cockpit recess taped over I was able to commence painting without any further messing about in the cockpit.

At this point a decision had to be made. Hannants had very kindly provided their recent Xtradecal sheets for the Hawk in 1/72. These are currently available as a package (X72169) combining three sets and offer the most amazing value. The combination of sets 72066/67/68 offer twenty eight aircraft in red/white/grey, two-tone grey and camouflaged schemes, another ten in all over black, and complete stencilling for a dozen or so machines in assorted schemes. It's a remarkable collection and this combined with the pocket money kit Revell have produced offer an amazing opportunity to fill your shelves with Hawks.

The chief problem then is which one? I opted for a black 100 Squadron machine, XX314, which is offered with a small anniversary marking that I simply left off. Halfords grey primer was followed by their matt black and before I knew it I was back adding dozens of tiny stencils to a black Hawk, although this time one with delicate surface detail and a nice shapely rear fuselage that promised an excellent finished result once the decalling chore was complete. It has to be said Hawks have a lot of stencils…

Painting and decalling complete I have now turned to the cockpit. More notes are probably the easiest way to describe progress to date:

1. Decals are supplied for the main panels but not the side consoles. These look good in situ under a closed lid so I decided to go with them and not try to adapt Eduard parts. I assume they will cover this kit in due course but from the box you can do a pretty good job
2. Panels, sticks, coamings and seats are provided. The seats are in three parts and are not bad but the moulded belts are a little unconvincing. For my personal taste they are a little simplified so I replaced them with some resin ones provided by 'Flying' Pickett, who has been insufferable after scooping gold at the London Plastic Modelling Show and needed to make amends. The kit seats will probably pass muster with a little work but the Hawk has a lot of glass and I felt given the ease with which the rest of the kit assembled that it deserved the best
3. The kit canopy has the detonator cord engraved and no trace of the blast shield engraved on it which is as it should be. It does have two big lugs moulded onto it to allow it to be positioned open with ease but these can be removed fairly easily. It is an excellent fit with the windscreen
4. The internal blast shield is also an excellent fit and can be inserted into the main canopy without any cement. I masked it and sprayed it black to represent the internal frame then added a strap to the rim made from a piece of thick tape painted a cream colour. This then sits inside the main hood and looks pretty convincing. As things stand I just need to add the white canopy seal to the outside of the kit part, for which I will cut strips from the Red Arrows decal sheet, but I am confident the finished result will be better than anything I achieved all those years ago

So nice work Revell. This little kit is a real treat to build and looks excellent so far. It really is all over bar the details so I am happy to recommend it based on my experiences so far. The second model is currently under way and will be finished in 4FTS markings also provided in the Xtradecal package, and for this I am experimenting with Halfords' sprays for the BS 537 Red. A close match recommended by various modellers is Volkswagen Mars Red and I have tried this out over both red and grey primers and it looks pretty good on both. Once I get round to the pile of Airfix S.A. Bulldogs I am collecting, and AZ Models release their Chipmunks, there will be a lot of this stuff flying about my workbench. *Horrido!*

NEW KITS ROUND UP

AA very exciting month from both the mainstream and our Czech friends, with key releases from Revell in the shape of the new BAe Hawk, from Sword with their 1/48 Lightning trainers, and Airfix with a new Sea King HC.4. Eduard have a mix of original and limited re boxings to die for, and their own Royal Class Fw 190 is one of this month's high spots.

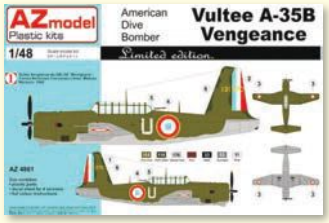
AZ's Klemms, OzMods PC-9s, S&M's Piston Provosts… looks like the industry is gearing up for another busy year!

Arma Hobby #70001 1/72 PZL TS-11 Iskra bis DF
Hannants

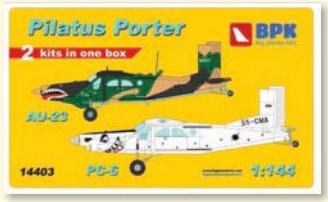
Attack Squadron #48036 1/48 Grumman F2F-1 PRO-Set
Hannants

Aerotech #32014 1/32 Heston Type 5

Airfix #04056 1/72 Westland Sea King HC.4
Airfix #09179 1/48 BAC/EE Lightning F.1/F.1A/F.2/F.3
Airfix #25001A 1/24 de Havilland Mosquito FB Mk VI



AZ Models #48061 1/48 Vultee Vengeance A-35B
AZ Models #48065 1/48 Vultee Vengeance Mk IV
AZ Models #74097 1/72 de Havilland DH-82B float plane version Queen Bee
AZ Models #74098 1/72 Focke-Wulf Fw 190D-9 Reich Defence
AZ Models #7504 1/72 Klemm Kl-35B
AZ Models #7505 1/72 Klemm Kl-35D Luftwaffe
AZ Models #7506 1/72 Klemm Kl-35D/Sk 15A in foreign service
Hannants/UMM-USA



Big Planes Kits #14403 1/144 Pilatus Porter PC-6 & Au-23
Big Planes Kits #14404 1/144 Pilatus Porter PC-6 & Au-23
Hannants/Victory Models

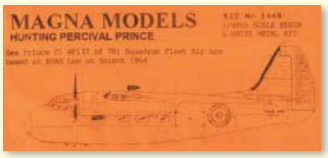
Brengun #72018 1/72 Zlin Z-50 golden age
Hannants/UMM-USA

Eduard kits #K1163 1/48 Ultimate Sabre North-American F-86F-30 Sabre
Eduard kits #K1165 1/48 Douglas SBD-5 Dauntless
Eduard kits #K4451 1/144 Avia B-534 early series Quatro Combo
Eduard kits #K70101 1/72 Avia B-534 III. Série Profipack
Eduard kits #K8078 1/48 Messerschmitt Bf 108B Taifun
Eduard kits #K84139 1/48 Supermarine Spitfire Mk VIII
Eduard kits #K8472 1/48 Bell P-400 Air A Cutie
Eduard kits #R0012 1/72 Focke-Wulf Fw 190A-8 Royal Class edition
Hannants/Creative Models/Squadron/Sprue Brothers

HobbyBoss #80379 1/48 Messerschmitt Me 262B-1a/U1
HobbyBoss #80381 1/48 Vought F4U-1 Corsair Early
HobbyBoss #81721 1/48 Focke-Wulf Fw 190D-13
HobbyBoss #81732 1/48 Northrop P-61C Black Widow
HobbyBoss #81745 1/48 SAAB J-29F Tunnan Flying Barrel
HobbyBoss #81749 1/48 Messerschmitt BF 109F-4
Creative Models/Squadron

ICM #48095 1/48 Polikarpov I-153
Hannants/Stevens International

Kovozavody Prostejov #7239 1/72 Lavochkin La-5FN Captured Planes
Kovozavody Prostejov #7260 1/72 Spitfire Mk IXC/Mk IXE Premium (3 kits) 1
Hannants/UMM-USA



Magna Models #4814 1/48 Percival Sea Prince C1
Hannants

Merit #62402 1/24 R.A.F. S.E.5a
Merit #64803 1/48 Gloster Gladiator Mk I
Pocketbond/Stevens International

Meng Model #MP-001 Boeing B-17G Flying Fortress Caricature
Meng Model #MP-002 Avro Lancaster Caricature
Meng Model #MP-003S Heinkel He 177 Bomber Caricature
Meng Model #MP-004 Tupolev TU-2 Caricature
Creative Models/Stevens International

MPM #72556 1/72 Douglas A-20G Havoc Russian Bomber Version
Hannants/Squadron

Modelsvit #7222 1/72 Tupolev Tu-22KD Shilo (Blinder)
Hannants/Stevens International

OzMods #7202 1/72 Pilatus PC-9 RAF/BAe Support Aircraft/RAAF FAC
OzMods #7203 1/72 Pilatus PC-9 US Army/RAAF
Hannants

Planet Models #26672 1/72 Short SC-1 First British VTOL Aircraft
Hannants/Squadron

Revell #03962 1/72 Heinkel He 70F-2
Revell #03963 1/72 Polikarpov I-153 Chaika
Revell #03965 1/48 Roland C.II
Revell #03966 1/48 Beech C-45F USAF
Revell #04921 1/72 BAe Hawk T.1 Red Arrows
Revell #04924 1/48 Panavia Tornado GR.4
Revell #04925 1/48 Dornier Do 215B-5 Nightfighter
Revell #04944 1/72 Mil Mi-28 Havoc

R.V.Aircraft #72045 1/72 Mikoyan MiG-21bis Experimental

R.V.Aircraft #72050 1/72 Mirage IIICJ

Hannants/UMM-USA

Special Hobby #32063 1/32 Bloch MB.152C-1 Early Version

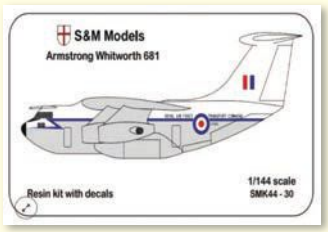
Special Hobby #48093 1/48 Heinkel He 178V-2

Special Hobby #48169 1/48 IMAM (Romeo) Ro.43 War Colours

Special Hobby #72325 1/72 Arado Ar-96A

Special Hobby #72331 1/72 CAC CA-3/5 Wirraway First Blood over Rabaul

Hannants/Squadron



S & M Models #44-30 1/144 Armstrong Whitworth 681

S & M Models #7231 1/72 Hunting Provost RAF/G-AWPH

S & M Models #7232 1/72 Hunting Provost T.52 Rhodesian/Irish Air Corps

S & M Models #7233 1/72 Hunting Provost T.53 Far East/Middle East users

Sword #48008 1/48 BAC/EE Lightning T Mk 4

Sword #48009 1/48 BAC/EE Lightning T Mk 5

Hannants/UMM-USA

Trumpeter #01667 1/72 Sukhoi SU-33 Flanker D

Trumpeter #02872 1/48 Douglas EKA-3B Skywarrior

Pocketbond/Stevens International

Unicraft #72120 1/72 BMW Strahlbomber I German jet bomber

Unicraft #72121 1/72 Ushakov LPL Russian WWII flying submarine project

Hannants

Zvezda #7012 1/144 Boeing 777

The Hobby Company/Dragon USA

UK IMPORTERS

Pocketbond: www.pocketbond.co.uk 01707 391509

The Hobby Company: www.hobbyco.net 01908 605686

Hannants: 01502 517444

Creative Models: www.creativemodels.co.uk 01354 760022

Amerang: www.amerang.co.uk 01482 887917

US IMPORTERS

Dragon USA: www.dragonmodelsusa.com 626-968-0322

Linden Hill Imports: www.lindenhillimports.com 914-734-9616

MRC: www.modelrectifier.com 732-225-2100

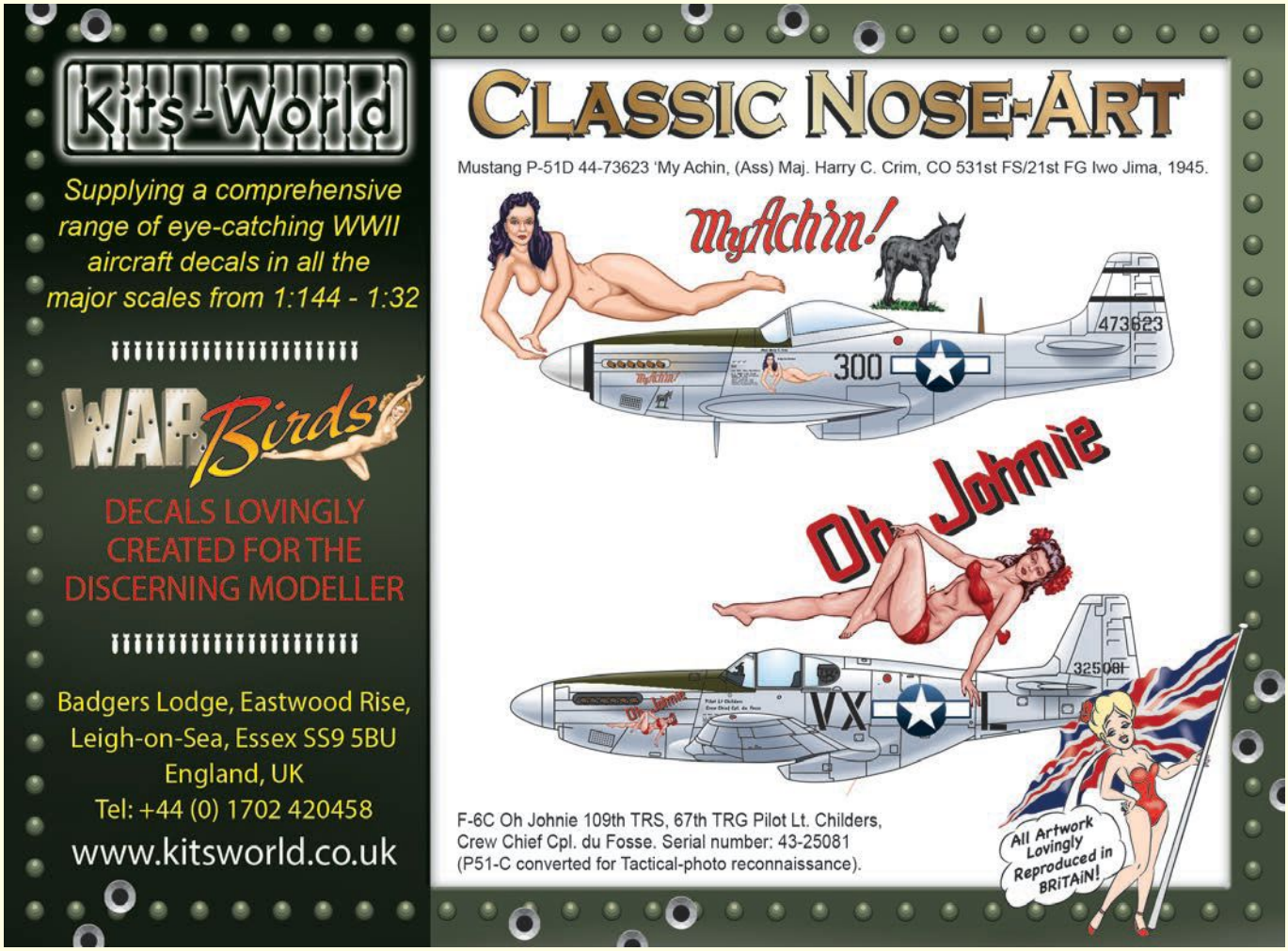
Rare-Plane Detective: www.rare-planedetective.com 702-564-2851

Sprue Brothers: www.spruebrothers.com 816-759-8484

Squadron: www.squadron.com 877-414-0434

Stevens International: www.stevenshobby.com 856-435-7645

UMM-USA: www.umm-usa.com 847-537-0867



XTRADECAL

This month sees Xtradecal get ahead of the game with the release of decals for the forthcoming Airfix 1/48 Defiant even though the kit is not due to arrive until early next year. Also getting the Xtradecal treatment is the Shackleton with Airfix's first example already on the shelves, and Revell's version due imminently – see elsewhere this issue. Two sheets cover the type and while there is only one AEW option bear in mind this version was not noted for its diversity. For the MR.2 there are plenty of options spanning a lengthy career, including one from Suez in 1956 and one from the ETPS at Farnborough in 1964.

Finally an amazing nineteen separate examples of the BAC Strikemaster have been shoehorned onto set X72238 which should cover almost any overseas examples of the little jet that you could want.

1/72

X72235 Avro Shackleton MR.2 & AEW.2 Part1

1. AEW.2 WL747 47/8 Squadron RAF Lossiemouth 1979
2. MR.2 WR964 204/Q 204 Squadron RAF Ballykelly 1953
3. MR.2 WG554 A/A 42 Squadron RAF St Eval 1953
4. MR.2 WL741 42/D 42Squadron RAF St Eval 1960

X72237 Avro Shackleton MR.2 Part 2

1. WG557 Empire Test Pilots School Farnborough 1964
2. WG557 T-L 228 Squadron RAF St Eval 1955
3. WR961/U 204 Squadron RAF Majunga 1971
4. WL758 37/E 37 Squadron Operation Musketeer Suez 1956
5. WL758 38/V 38 Squadron RAF Hal Far 1966
6. WL738/204 204 Squadron RAF Ballykelly NI 1957

X72238 BAC Strikemasters Worldwide

1. Mk 80 G-AWOS at Farnborough Air Show 1968
2. Mk 80A 1120 Royal Saudi Air Force, King Faisal Air College, Saudi Arabia 1970
3. Mk 80B 902/1026 Royal Saudi Air Force, King Faisal Air College, Saudi Arabia 1968
4. Mk 82 418/8 Sultan of Oman Air Force G-BAWF/277 at Paris Air Show 1973
5. Mk 82 408/8 Sultan of Oman Air Force Dhofar 1975
6. Mk 82 404 Sultan of Oman Air Force Masirah, Oman 1994
7. Mk 82 404 Sultan of Oman Air Force Masirah, Oman 2001
8. Mk 83 04/Z2 Botswana Defence Force 1990
9. Mk 83 K167/110 Al-Quwwat, Kuwait 1980
10. Mk 83 K167/120 Al-Quwwat, Kuwait G-AYVK/461 at Paris Air Show 5/6/1971
11. Mk 83 NZ6364/64 14 Sqn Royal New Zealand Air Force Ohakea Air Base 1980
12. Mk 83 502 FTS South Yeman Air Force
13. Mk 84 301/B FTS Singapore Air Force, Tengah, Singapore 1972
14. Mk 84 301/B FTS Singapore Air Force, Tengah, Singapore 1980
15. Mk 84 303/D FTS Singapore Air Force, Tengah, Singapore 2001
16. Mk 87 601 Kenyan Air Force 1980
17. Mk 89 244/T44 Esc.de Combate 2313 Halcones, *Fuerza Aerea Ecudoriana* 1980
18. Mk 90 260/T60 Esc.de Combate 2313 Halcones, *Fuerza Aerea Ecudoriana* 1990
19. Mk 90 167 Sudanese Air Force 1980

1/48

X48157 Boulton Paul Defiant Mk I/NF.MK II/ASR.Mk I

1. Mk I N3340, YD-D, 255 Squadron RAF Kirton-in-Lindsey 1941
2. Mk I N3437 EW-K, 307 (Polish Night Fighter) Squadron RAF Jurby 1941
3. NF.Mk I V1110 RA-H, 410, (Canadian) Squadron RAF Drem 1941
4. Mk I V1116 JT-H, 256 Squadron RAF Colerne 1943
5. ASR.MK I, V1121 BA-O 277 Squadron RAF Stapleford Tawney 1942
6. NF.Mk II AA583 ZJ-M, 151 Squadron RAF Wrexham 1942

www.hannants.com

PRINT SCALE

Two new sheets have arrived from this source offering some interesting options for Soviet aircraft. MiGs 17, 19 and 21 get the treatment with some diverse camouflage schemes offered.

1/48

48088 MiG-17, MiG-19, MiG-21 Part 1

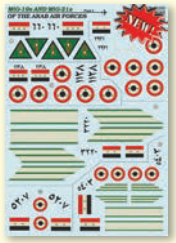
Air Force of the Vietnam War

This set offers individual markings for eleven aircraft from the North Vietnamese Air Force between 1964 and 1972. Three Shenyang J-5/MiG-17Fs are included, one MiG-19S and seven MiG-21s, mostly MiG-21 PFs. The set includes one set of national markings sized for each type and a full colour instruction sheet for decal placement and details of the camouflage schemes.

48090 MiG 19s and MiG-21s of the Arab Air Forces Part 1

Four MiG-19s and two MiG-21s in a selection of interesting schemes are included here, including Syrian, Egyptian and Iraqi aircraft. This sheet covers machines from 1965-1967 and offers national insignia and individual markings (in Arabic) as well as the wing stripes for the Egyptian aircraft where appropriate.

Hannants/Linden Hill

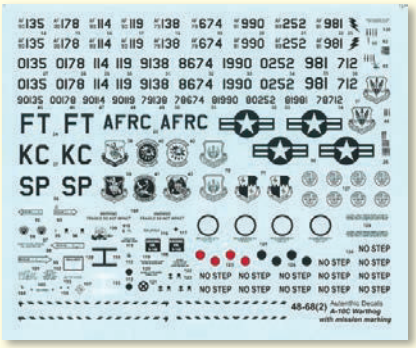


AUTHENTIC DECALS

#48-68 A-10C Warthog with Mission Markings

This typically packed 1/48 sheet offers markings for ten aircraft mostly operating from Bagram in Afghanistan from 2008. The sheet includes national markings and stencilling for one aircraft and some interesting individual mission scores, badges and inevitably a shark's mouth.

Hannants/Linden Hill



LIFELIKE DECALS

Three new sheets from Lifelike focus on a couple of old favourites the P-47 and P-51, with some very striking schemes offered for the Tamiya kits. Particularly pleasant is the Olive Drab bubble top P-47 flown by Frank Oiler, complete with invasion stripes, a scheme that sits nicely on the type and to my eye is more attractive than the more popular bare metal options.

These sets are very impressive packages with plenty of notes on the colours and markings provided, full colour instruction sheets while the decals themselves are beautifully printed. Not perhaps the most esoteric of subjects, but if you are a fan of nose art and the kind of colourful markings found on late war USAAF machines this is a great place to start.

1/48

48-045 Republic P-47D Thunderbolt Part 7

1. P-47D-11-RE, 42-75429, 1st Lt Frank Oiler, 84FS/78FG, Duxford, Summer 1944
2. P-47D-28-RA, 42-28878, 1st Lt Frank Oiler, 84FS/78FG, Duxford, September 1944
3. P-47D-30-RA, 44-33219, 404FS/371FG, post VE day, Kitzingen, Germany

48-046 Republic P-47D Thunderbolt Part 8

1. P-47D-30-RA, 44-33416, Major Charles F. Matheson, 394FS/367 FG, Furth, Germany, Spring 1945
2. P-47D-23-RA, 42-27886, Captain Marvin E. Grant, 342FS/348FG, Leyte, November 1944
3. P-47D-6-RE, 42-74726, Captain Charles F. Anderson, 335FS/4FG, Debden, November 1943

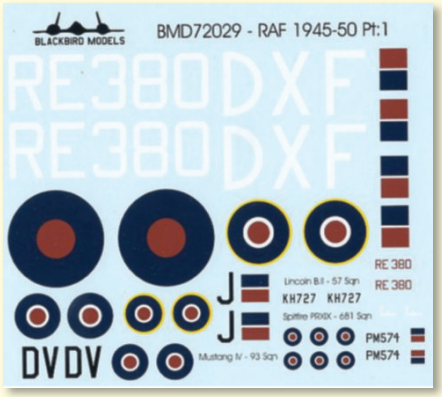
48-047 North American P-51 Part 3

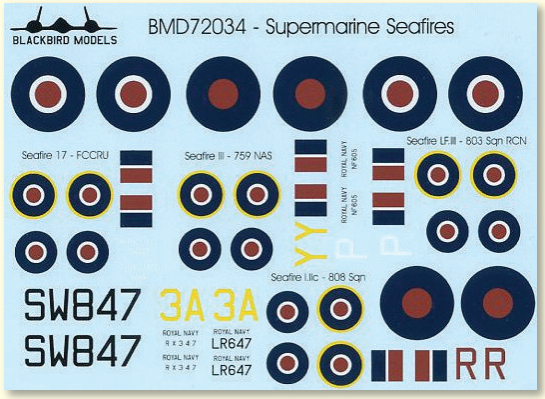
1.P-51B-5-NA , 43-6819, Captain Duane Beeson, 334FS/4FG, Debden, April 1944
2.P-51K-10-NT, 44-12147, Colonel George Bickell, 354FG, Ansbach, May 1945
3.P-51K-1-NT, 44-11459, Captain Barney Fudge, 74FS/23FG, Liuchow, China, July 1945
4.P-51D-10-NA, 44-14676, 3rd Scout Force, 8AF, Warrington 1945

Hannants

BLACKBIRD MODELS

New 1/72 sheets from Blackbird continue to add unique and under kitted subjects to their eclectic range. Four new releases in 1/72 offer a nice variety of World War II allied and postwar subjects. Print quality is high on both the decals and the colour instruction sheets so if you are looking for something interesting to do with a familiar subject – the Argentine Lancasters look especially smart – check out the website and see the full range as well as those various ranges for which Blackbird is importer.





#72029 RAF Post War Part 1

1. Lincoln B.II 57 Squadron
2. Mustang IV 93 Squadron
3. Spitfire PRXIX 681 Squadron

#72030 Operation Torch Part 3

1. Seafire Ib 801 NAS
2. Martlet IV 882 NAS
3. Hurricane IIc 43 Squadron

#72034 Supermarine Seafires Part1

Seafire 17 FCCRU
Seafire III 759 NAS
Seafire LF.III 803 Squadron RCN
Seafire Ic 808 Squadron

#72035 Argentine Avros

Lincoln B.II Argentine Air Force
Lancaster B.I Argentine Air Force (two different schemes)

www.blackbirdmodels.co.uk

HATAKA

HTK-AS32 Luftwaffe Legion Condor paint set

From July 1936 till March 1939 the Luftwaffe detachment that became known as the Legion Condor took an active part in the war in Spain supporting General Franco's nationalist forces. Most of the legion's planes wore the standard Luftwaffe colours of the time, firstly RLM 63 (or RLM 02) overall, later replaced by the standard RLM 61, 62 and 63 over 65 pattern. The camouflage of Bf 109sB, C, D and Es delivered from late 1937 has been widely discussed in recent years and no consensus has been reached whether RLM 62 or 63 was used for their upper surfaces.

This set contains a careful selection of colours required for modelling Luftwaffe aircraft in service between 1936 and 1939 and includes:

HTK-A023 - Grey (RLM02) Used on early Ju 52s, He 59s, He 111s and upper surfaces of the experimental He 112 V9. An overall colour of early Bf 109B-1s

HTK-A167 - Light Grey (RLM63) Overall colour of early He 51s. Used in the RLM61/62/63/65 pattern and, according to some authors, on upper surfaces of Bf 109B-Es

HTK-A168 - Dark Brown (RLM61) Used from mid 1937 on upper surfaces in the RLM61/62/63/65 standard pattern

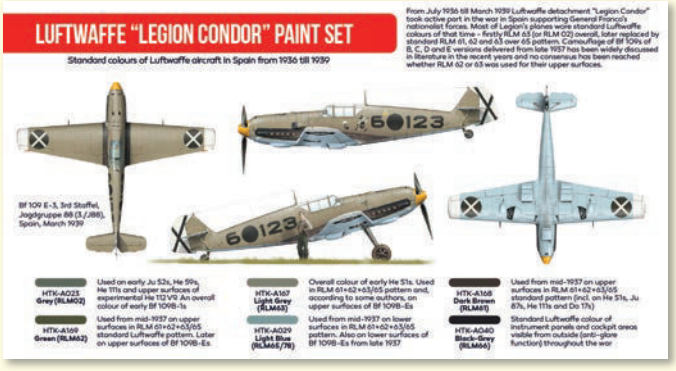
HTK-A169 – Green (RLM62) Used from mid 1937 on upper surfaces in the RLM61/62/63/65 standard Luftwaffe pattern. Later on upper surfaces of Bf 109B-Es

HTK-A029 - Light Blue (RLM65/78) Used from mid 1937 on lower surfaces in RLM61/62/63/65 pattern. Also on lower surfaces of Bf 109B-Es from late 1937

HTK-A040 - Black-Grey (RLM66) Standard Luftwaffe colour for instrument panels and cockpit areas visible from outside (anti glare function) throughout the war

www.hataka-hobby.com

eModels/Stevens International



RETROKIT

Fans of the smaller scale will no doubt be familiar with Retrokit as it is the essential first port of call for most if not all of your 1/144 needs. New releases continue to update and improve existing kits, or in the case of the B-52 conversions to open up new possibilities. All these resin sets finely cast and will make a world of difference to your model.

Retrokit also continue to release Egg Plane sets as well, adding a whole new angle to these oddities. I wonder if the new Meng Models egg bombers will get the treatment in due course…

1/144

RW44092 XB-47D Conversion Kit for Academy/Hobbycraft kit

RW440096 Jaguar A Cockpit for LS kits

RW440097 Jaguar A Nose for LS kits

RW44099 Jaguar Gr.1/3/3A Nose for LS kits

RW44100 B-52B/C/D/E Conversion Kit for Revell kits

RW44101 Jaguar Gr.1/3/3A Cockpit Pylons for LS kits

RW44102 Jaguar Gr.1/3/3A Over Wing Pylons for LS kits

RW44109 B-52 HSAB/MER Pylons for Revell kit

1/72

RSF072 Indi's German Biplane Conversion Kit

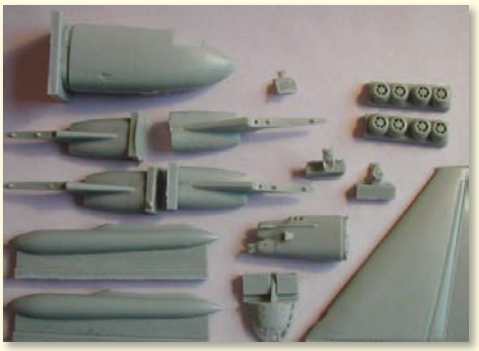
Twelve part resin kit designed to fit any 1/72 Azur/Frrom Stampe SV.4 kit and turn it into the aircraft briefly flown by Indiana Jones when escaping Nazi Germany in the 1989 film Indiana Jones and the Last Crusade. Decals by Black Lion Decals included.

Egg Planes

RWE037 A6M2-N Rufe Conversion

RWE052 F4U Corsair Cockpit

www.retrokitonline.net



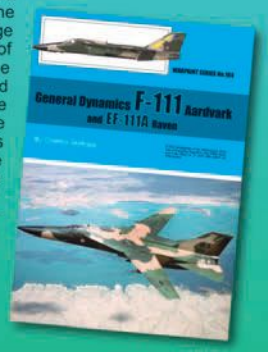
Orders from the world's book and hobby trade are invited

Warpaint series No.105

£13.00

Sopwith PUP

The Sopwith Pup, as it is unofficially but universally known, was one of the first true British fighter aircraft, and one of the most significant of the First World War. It played a key part in maintaining control of the skies over the Western Front during and after the RFC's toughest period, Bloody April, 1917. Its superb flying qualities kept it competitive as ever-faster and more powerful opposition appeared, and it played an unglamorous but important role in the defence of the UK against zeppelin and heavy bomber attacks, and was fundamental to the development of ship-based aviation. With the very well-established categories of military aircraft that are familiar today, it is hard to comprehend the world in which the Pup was born, where these clear delineations did not exist. Certainly the idea of the fast, agile single-seat fighter was barely thought of when the Pup's outline was first chalked on the floor of the experimental workshop at Sopwith's Kingston-upon-Thames premises in 1915. The new aircraft was known as the 'Sparrow', was powered by a 50hp Gnome rotary. Test pilot Harry Hawker took the aircraft to Brooklands and amazed trainee RFC pilots by flying it under the bridge across the Byfleet Banking. It was fully aerobatic and capable of a speed just shy of 85mph despite the low engine power. It is unclear whether Sopwith intended the machine to form the basis of a military aircraft but in any event, its performance and handling, even on such low power, must have recommended it for that purpose. The 'Sparrow' therefore became the progenitor of the aircraft that would become the 'Pup'. It was around the time of the prototype's first appearance that the Pup seems to have gained its popular name. Brigadier-General SeftonBrancker, then the RFC's Director of Air Organisation, is reputed to have remarked, on seeing the prototype Scout beside its larger sibling at Brooklands, 'Your 1½ Strutter has had a pup!' For all its value as a front line fighting aeroplane, the Pup had a potentially even greater impact on the development of naval aviation; in particular, the sometimes tortuous path of launching aircraft from, and returning them safely to, ships at sea. Moreover, the Pup became one of the more successful operational aircraft in this fledgling area of combat. This is the first WWI title in the series and includes all the usual Warpaint features – historical text, modellers glossary, colour artwork by Richard Caruana and a three page colour walkaround by author Matthew Willis.



Previous title:
General Dynamics F-111 & EF-111A
£19.00

Warpaint on the web
For prices, details of availability and secure ordering
www.warpaint-books.com

All major credit cards accepted. Orders can be placed by mail, telephone, fax or through the website. (www.warpaint-books.com) Plus postage and packing on all orders. Overseas readers pay postage at air mail printed paper rate.

WARPAINT BOOKS LIMITED

Unit 3, Enigma Building, Bilton Road, Denbigh East, Bletchley Bucks MK1 1HW
Telephone: +44 (0)1908 270400, Fax: +44 (0)1908 270614, Email: kim@regallitho.co.uk

BRENGUN

Further new releases in Brengun's accessories range:

1/144

BRL144120 Hand Truck

BRL144121 La-5 vacform canopy for Kovozavody Prostejov kit

1/72

BRL72098 Zlin Z-50 painting masks for Brengun kit

BRL72099 Zlin Z-50 etched details for Brengun kit

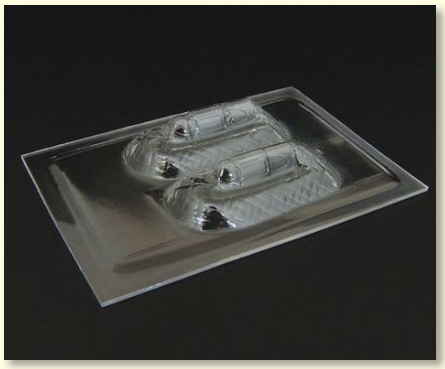
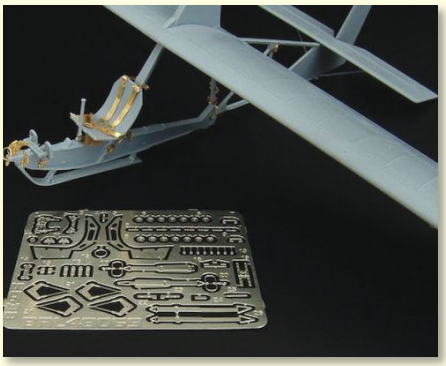
BRL72100 Letov S-328 etched details for Special Hobby kit

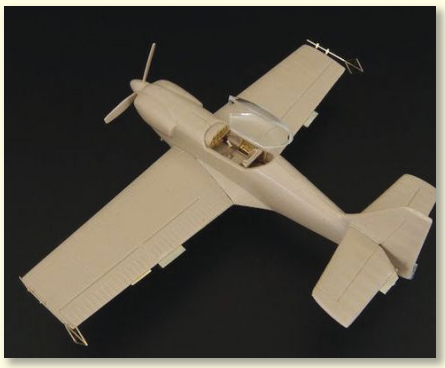
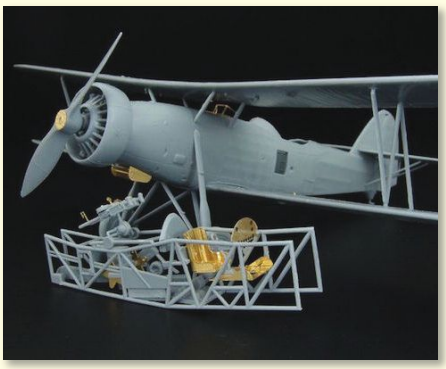
BRL72101 Zlin Z-50 vacform canopy for Brengun kit

1/48

BRL48069 SG-38 etched details for Special Hobby kit

Hannants/UMM-USA
www.brengun.cz

EDUARD

This month's crop is lavished on the smaller scales with some of the recent 1/72 kits in particular getting the benefit – those HobbyBoss Jaguar Es for instance, and the Airfix Kate, which gets a mask set as well. Very welcome for those not inclined to cut their own…

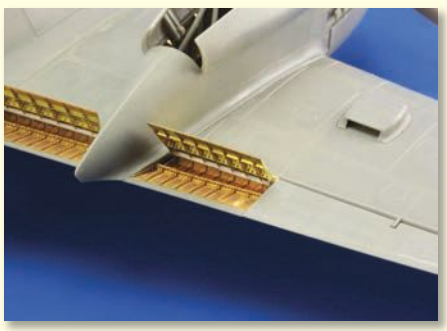
As usual Eduard's sets add a special touch to any model they are applied to and clever engineering puts them within the scope of most modellers too, so if you have never tried one just get hold of a ZOOM set and give it a go!

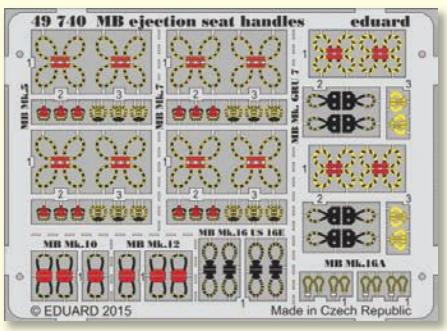
48863 F-86F-30 upgrade set for Eduard kit
48864 A-6E TRAM exterior for HobbyBoss kit
48865 A-6E electronic equipment for HobbyBoss kit
48866 Mirage III E exterior for Kinetic kit
48867 Do 215B-5 Nighfighter landing flaps for ICM/Revell kit
48868 Do 215B-5 Nighfighter radar antennas for ICM/Revell kit
49740 MB ejection seat handles
49741 A-6E TRAM interior for HobbyBoss kit
49742 Mirage III E for Kinetic kit
49743 He 51B.1 for Roden kit
49744 Fokker Dr.I for Revell kit
49745 Do 215B-5 Nighfighter ZOOM for ICM/Revell kit
FE741 A-6E TRAM interior for HobbyBoss kit
FE742 Mirage III E interior for Kinetic kit
FE745 Do 215B-5 Nighfighter for ICM/Revell kit
FE746 Spitfire Mk VIII for Eduard Weekend kit
EX483 Spitfire Mk VIII for Eduard Weekend kit
EX484 A-6E TRAM Masks for HobbyBoss kit
EX485 Do 215B-5 Nighfighter Masks for ICM/Revell kit
EX486 He 51B.1 Masks for Roden kit
EX487 Mirage III E masks for Kinetic kit

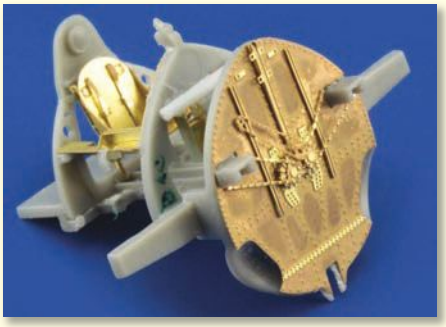
73536 B5N2 Kate for Airfix kit
73538 F4F-4 for Airfix kit
73539 Su-24MR for Trumpeter kit
SS536 B5N2 Kate ZOOM for Airfix kit
SS539 Su-24MR for Trumpeter kit
SS540 Jaguar E for HobbyBoss kit
CX429 B5N2 Kate masks for Airfix kit
CX430 Su-24MR masks for Trumpeter kit
CX431 Jaguar E Masks for HobbyBoss kit
CX432 F4F-4 masks for Airfix kit

144008 Avia B.534 for Eduard kit

Hannants/Creative Models/Sprue Brothers/ Squadron
www.eduard.com

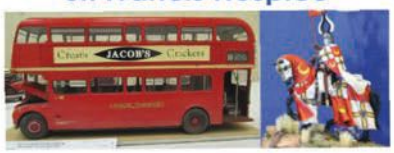






Admission: *Adults* **£3**
Snr.Citizens **£2**
Children **£1**

All proceeds go to the
St. Francis Hospice



Multi - Class Competition
Sunday Only
Senior Classes sponsored by
modelsforsale.com

For more details send SAE to either...

Peter Bagshaw
25, Repton Drive
Gidea Park
Essex RM2 5LP
Tel: 01708 726 102

Robinn Bellamy
160 Faringdon Ave.
Harold Wood
Essex RM3 8JT
Tel: 01708 376 508

Opening Times:
10am to 5pm Saturday - 10am to 4pm Sunday

Hornchurch Sports Centre
Harrow Lodge Park, Hornchurch Road,
Hornchurch
Essex RM11 1JU

Southern Expo 2016
19th & 20th March

The Friendly Show

Email:
southernexpo@tiscali.co.uk
Website:
HTTP://WWW.SOUTHERNEXPO.CO.UK/

WHIRLYBIRD

Quite a lot of new products available from Whirlybird since Telford. Of immediate note are the rather tasty 1/144 F-4D and C Phantom kits, very nicely tooled resin items that address a significant gap in the market.

In 1/72 a nice selection of complete kits have been added to the range, including three boxings of the Westland Whirlwind HAR.10. 1.72 kits are:

WKM72012 English Electric P.1

WPX72041 MH-3E Pave Pig USAF Desert Storm

WPX72046 Whirlwind HAR.10 RAF 2 FTS

WPX72047 Whirlwind HAR.10 32 Squadron RAF

WPX72048 Whirlwind HAR.10 22 Squadron RAF

New accessories and conversion sets also cover a number of unique subjects:

WBA72126 Congo CH-21B with conversion parts and decals

WBA72134 Royal Navy Sea King HU.5 771 Squadron 60 Years of RN SAR

WBA72136 AB.212 Bristow Helicopters G-BALZ

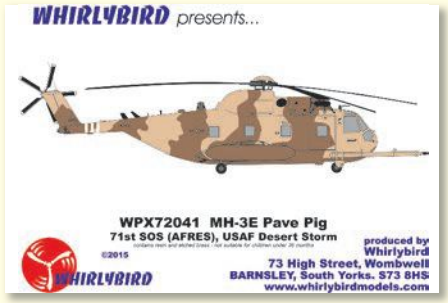
WBA72137 S-61N G-LINK Gatwick-Heathrow Air Link

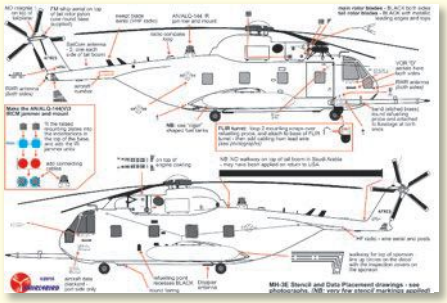
WBA72138 Saltire Sea King 819 NAS Prestwick plus replacement sponsons

WBA72139 Congo FAC and Katanga H-19s and S-55Cs plus UNO H-19s

If you manage to catch them at a show the full range is well worth a closer look, especially if rotary winged subjects are your thing.

www.whirlybirdmodels.com
+44(0)1226 345635





DARKSTAR

The Airbrush Company is pleased to announce Darkstar Pigments and Darkstar Molten Metals. Developed originally for the wargaming and fantasy modelling market they recommend these pigments and paints as a great addition to your armoury for any genre of modelling. Feedback from trusted expert modellers is that these are among the best water based metallic paints they've seen.

Darkstar Molten Metals are a new range of water based acrylic metallic paints that are new to the modelling community. These paints are manufactured to the highest quality to produce the feel of a liquid metal. The paints are permanent when dry and there is no need for gloss varnishing as they stay bright and glossy and will not tarnish over time. Once fully dry (approximately twenty four hours) they can be carefully polished to improve the shine further. A primer or acrylic base coat is recommended and they can also be used through an airbrush with just a 10% water mix for a great airbrush finish and will still remain glossy. The paint should only be mixed with water (tap water can be used) and they are not to be mixed with any alcohol based products.

They are fully intermixable and can also be mixed with other acrylic paints to create your own metallic colours.

There are twenty four shades in the range. Price for a 17ml bottle is £3.00.

Darkstar Pigments

Darkstar Pigments are the fine ground pigments for weathering. Being so fine the pigment naturally clings to surfaces and crevices without the need for adhesion agents. Price for a 15ml bottle is £2.50 and they can be purchased singly or in the following sets:

Earth Set I (Dark Earth/Earth/Mud)

Earth Set 2 (Red Earth/Baked Earth/Light Earth)

Rust Set (New Rust/Rust/Light Rust)

Sand Set (Sand/Orange Sand/Light Sand)

www.airbrushes.com

SCALE AIRCRAFT CONVERSIONS

48294 1/48 SAAB J21 A-3 Landing Gear Pilot Replicas

72118 1/72 Junkers Ju 88 Landing Gear Zvezda

72119 1/72 Short Stirling Landing Gear Italeri

72120 1/72 Dornier Do 17 Landing Gear Airfix

72121 1/72 F4D-1 Skyray Landing Gear Tamiya

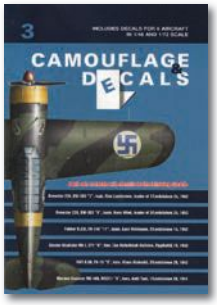
The latest monthly releases of replacement white metal undercarriage sets from Scale Aircraft Conversions cover a number of the latest releases as well as some older, but none the less welcome. With a booming catalogue of releases planned, it will be interesting to see what the New Year brings from SAC.

www.scaleaircraftconversions.com

Book Reviews

A look at some of the latest publications received for review Edited by **Ernie Lee**

Camouflage & Decals No 3



Publisher: **Mushroom Model Publications**
ISBN: **978 83 63678 93 7**
Format: **Softback, 146pp**

These decals have been produced to enable the modeller to build six examples from the Mushroom publication Finnish Fighter Colours, Volume 1 In both 1/72 and 1/48. The instructions are copied directly from this book with its very large four view artwork complete with all the colour information, handily with FS numbers. The aircraft represented are as follows:

Brewster 239 BW-393 7 1/*Lentolaivue* 24, 1942

Brewster 239 BW-393 9 3/*Lentolaivue* 24, 1943

Fokker D.XX1 FR-140 11 2/*Lentolaivue* 14, 1942

Gloster Gladiator Mk 1 271 A Flgyflottilj 19, 1940

Fiat G.50 FA-15 5 3/Lentolaivue 26, 1942

Morane-Saulnier MS 406 MS311 5 1/*Lentolaivue* 28, 1941

More of these are on the way including the MiG-29 in Polish service in the Spotlight series.

www.mmpbooks.biz

Ernie Lee

American Secret Projects - Fighters, Bombers and Attack Aircraft 1937-1945 Volume 1

Author: **Tony Buttler and Alan Griffith**
Publisher: **Crecy Publishing Ltd**
ISBN: **978 19065 374 87**
Format: **Hardback 280pp**

According to the authors only two of the aircraft covered in this book were designed and flown before 1937. This indicates the power and ingenuity of the American industry, but only by reading this book will you discover the depth and ingenuity of the designers.

The book is divided into nine chapters as follows; USAAF Single Engine Fighter, USAAF Twin Engine Fighters, USAAF Light and Medium Bombers, USAAF Heavy Bombers, USAAF Attack Aircraft, US Navy Fighters, US Navy Attack Aircraft, Maritime Patrol Aircraft and Flying Boats and Miscellaneous Programs.

Starting with Chapter 1 you will find the well known P-47, but you will also find this chapter full of projects that never left the drawing board. Although many of these aircraft did not get much further than a prototype, the modeller will not be short of kits from this section. I counted at least seven of these that are available in scale. The chapter chronicling USAAF Twin Engine Fighters is much shorter but even in this category I have found information on four other aircraft that were produced in kit form.

Moving to bombers we have plenty of proposals and some prototypes I am not familiar with at all. Many of these would cause a sensation among what if enthusiasts. One such monster is the North American NA-116 design, a four engine twin boom machine with no less than fourteen 0.50in machine guns and six 20mm cannon.

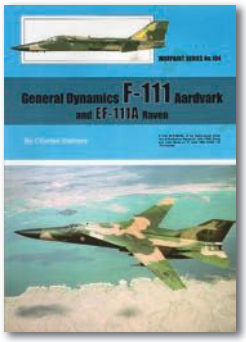
This book has given me a renewed interest in such machines. I have previously built a number of prototype aircraft and I cannot wait to check my computer list to see just how many more I have in stock. I suspect it would keep me going for a year.

If you think you know a lot about American aviation I suggest you take a look at this volume - you may change your mind.

www.crecy.co.uk

Ernie Lee

General Dynamics F-111 Aardvark and EF-111 Raven



Author: **Charles Stafrace**
Publisher: **Warpaint Books Ltd**
Format: **Paperback 88pp**

After a disastrous start in Vietnam the F-111 redeemed itself and even as late as 1991 it became a useful tool with the EF-111A carrying out a policing roll after the Iraq-Kuwait war. This and its further service with both the USAF and in Australia is fully documented. There are numerous photographs in both colour and monochrome and the artwork is excellent. We get three pages in the in detail section and to finish there are 1/72 drawings by Richard Caruana.

The author supplies a list of available product in three scales, offering no less than forty five kits plus a full page of decals and accessories.

This book could quite possibly revive your interest in this aircraft, it certainly has for me, and when I checked my computer list I found I had six kits in stock. This is another essential reference to add to your aviation shelf.

www.warpaint-books.com

Ernie Lee

Hawa Volume 2 - Datafile 169

Author: **Ray Rimell and Harry Woodman**
Publisher: **Albatros Productions Ltd**
ISBN: **978 19067 984 44**
Format: **Paperback 32pp**

I strongly recommend you also obtain Volume 1 on the CL.II as this book continues the story of this aircraft before moving on the CL.III. Pages two and three offer a description and photographs of an Opel built Argus engine which powered many of these machines, and I should imagine this information is essential for the modeller.

The next section covers further developments of these machines, namely the CL.VI and CL.V followed by the drawings, which are real treat in both 1/72 and 1/48, and depict the CL.IIIa and a CL.III with a Mercedes engine. There are also 1/48 drawings of the CL.V by Ian Stair and the second half of the supplement Aeronautical Engineering September 1918, which includes sketches from the official parts manual on the CL.II. The information in this nine page section, added to the previous part in Datafile 168, will be invaluable to the modeller in whatever scale he builds. The artwork includes three profiles of CL.IIs all in different colour schemes, one CL.III and five CL.IIIAs.

These aircraft have been kitted in the four popular scales so you have no excuse. I do not need to recommend this profile as all serious World War I aircraft modellers know these are arguably the best reference on the market.

www.windsockdatafilespecials.co.uk

Ernie Lee

Hawker Hurricane

Author: **Marek Rys**
Publisher: **Mushroom Model Publications**
ISBN: **978 83636 788 83**
Format: **Hardback 158pp**

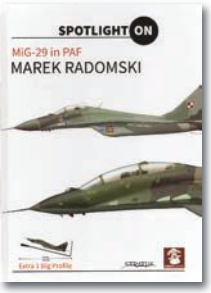
This machine has long been a favourite of British modellers and with new kits coming on the market with even more frequency I think this book comes at the right time. As you might expect the first few pages are dedicated to the formation of the company and their superb designer Sidney Camm. The next four pages describe the well known prototype K5083, followed by fifty eight pages discussing the variants.

Halfway through the book we come to the detail photographs and I am sure the super detailer will make good use of these. There is much more, but you will just have to buy the book to find out what. Recommended.

www.mmpbooks.biz

Ernie Lee

MiG-29 in Polish Air Force Service



Author: **Marek Radomski**
Publisher: **Mushroom Model Publications**
ISBN: **978 83636 789 68**
Format: **Hardback 46pp**

This is another in the Spotlight series illustrating the four basic colour schemes found on Polish aircraft. As this is a fairly modern aircraft it has been possible to get far more colour details than would be possible for World War II subjects, hence a number of colour profiles showing both sides of the machines plus both top and bottom views.

This is yet another collection of outstanding artwork from this prolific publisher.

www.mmpbooks.biz

Ernie Lee

HEAVY

MUD & SPLASHES

MEDIUM DENSITY MUD

NEW

HYPERREALISTIC MUD? ONLY WITH ENAMELS

The only realistic product available for creating authentic mud effects on your models, ground work, dioramas, and vignettes. For the very first time, a product is available that doesn't change color when it dries. A longer drying time allows us more working time to modify and correct as needed and desired. The new enamel range can be mixed wih enamel earth effects and cleaned with our enamel thinner.
Available in 12 different colors with bright, satin and matt finishing.

MUD

- *High density.*
- *Mud is used to make larger mud accumulations and also to recreate the fresh mud on terrain.*
- *Mud can be combined with a variety of textures such as stone, sand, or grass for various effects.*
- *Mud can also be combined with SPLASHES to make various mud textures attached to vehicles sides.*

SPLASHES

- *Medium density replicating realistic splashed mud.*
- *Perfect for making dry and fresh mud splashes using a brush.*
- *Splashes can be used to paint stains around objects and create accumulation effects.*
- *Splashes are also used on dioramas and terrain to apply small touches of dust and mud.*

You Tube
/MigJimenez
www.migjimenez.com
THE WEATHERING MAGAZINE
AMMO by mig jimenez

TIM MCLELLAND

(aka Tim Laming) 8 August 1962 to 6 November 2015

This year has been a bad year for the modelling fraternity, as we have lost too many friends, and I was literally stopped in my tracks at this year's Scale ModelWorld at Telford when I was told of the sudden death of Tim McLelland, who many of you will know as Tim Laming. Tim was admitted to hospital in late October and deteriorated rapidly, succumbing to Metastatic Oesophageal Cancer on the evening of 6 November, with his partner of twenty years Mark, his long time friend Terrence Wong Lane, and his brother John at his bedside.

I have known Tim from way back in the mid-1970s when a tall, slim, quiet but confident young teenager started attending the IPMS Sheffield Branch meetings. It soon became apparent that Tim had an exceptional talent for modelling – his 1/72 aircraft models were to a very high standard right from the start and once he had mastered the use of his then new airbrush, the results were little short of spectacular. I still remember our collective awe when he brought a superbly built and finished Airfix Dassault Super Mystere 2B in an intricately airbrushed Tiger Meet scheme to a meeting...

Tim was very single-minded about aeroplanes and developed a rare talent for photographing them, and it soon became obvious that he was destined for a career in aviation journalism and aviation photography, which manifested itself by first contributing to the Malta-based *ModelAid International* magazine, providing photographs and a news report titled 'Out and About'. He was elected editor of *IPMS (UK) Magazine* in 1985, and edited the publication from issue 1/85 to 3/87, keeping his links with the guys at *ModelAid* who at that time set, designed and printed *IPMS (UK) Magazine* in Malta.

Tim eventually moved on and from the early 1990s authored a string of aviation books for the likes of Crécy, Osprey, Key and Midland, which is where most people will know his name from – which he changed from Laming to McLelland (his mother's maiden name) in the mid-2000s. A very private individual, like so many talented people, Tim didn't accept authority well and could be 'difficult' at times, but he had a wonderful, if somewhat oblique sense of humour, which often had us rolling about in laughter.

Undoubtedly a complex character, he was none-the-less a good friend to those that knew him well, and I was privileged to be counted amongst that group. He will be missed.

He leaves his partner, Mark, and a surviving older brother John.

Neil Robinson

BUNNY FIGHTER CLUB

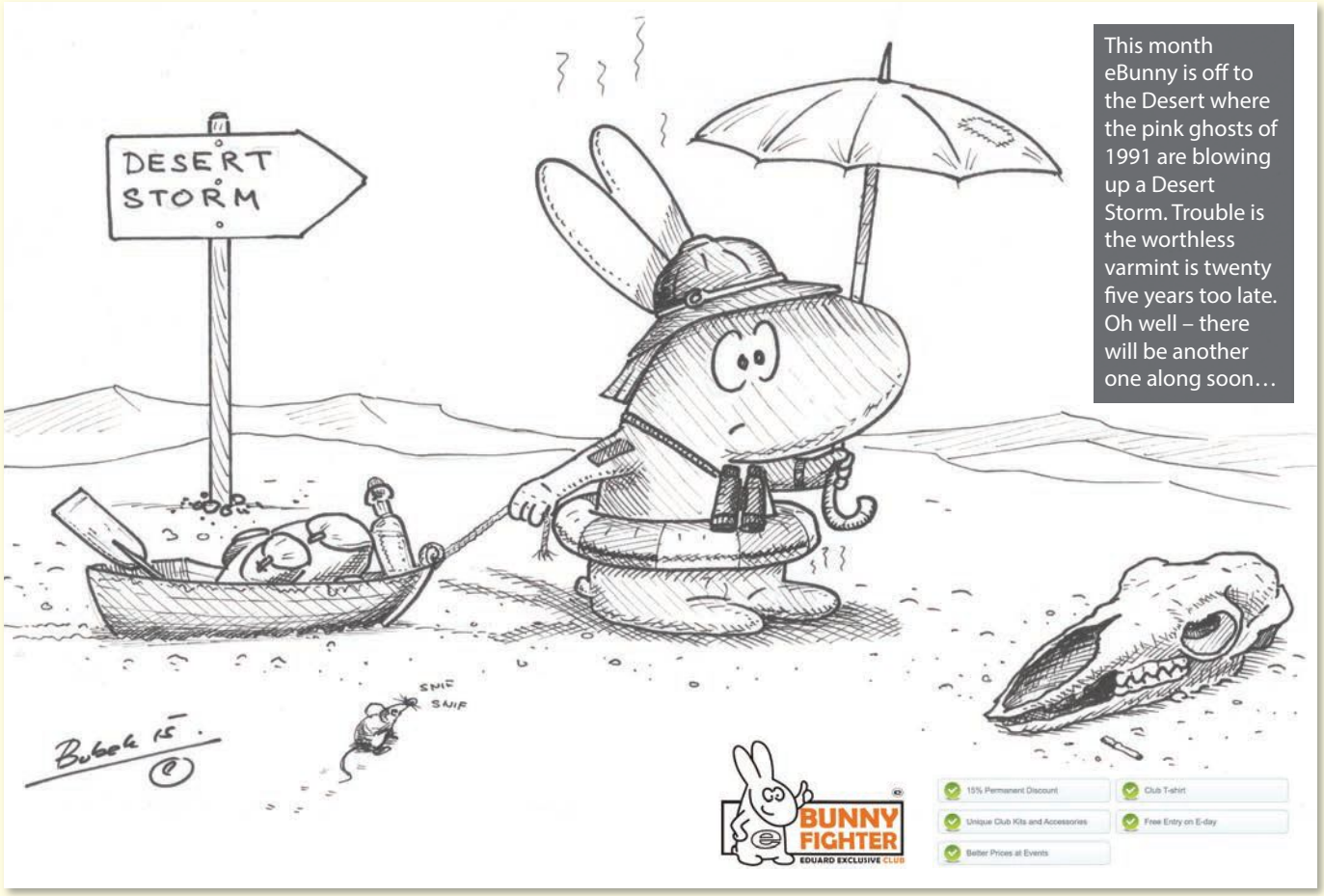
Don't forget to sign up for the best loyalty scheme going for fantastic discounts on Eduard's products. The Bunny Fighter Club moves from strength to strength!

Membership Benefits:

- 15% Permanent Club discount at Eduard's Store
- Unique valuable Club kits and accessories – especially made for BFC members
- Even better prices at Eduard events stand –BFC members will have an even higher discount at these events
- Club T-shirt – you will receive your fancy BFC T-shirt with a unique design and special barcode (used for event discounts). This T-shirt will be exclusive to members only
- Free entry fee on E-day

Get on board today…

www.eduard.com/bfc/



This month eBunny is off to the Desert where the pink ghosts of 1991 are blowing up a Desert Storm. Trouble is the worthless varmint is twenty five years too late. Oh well – there will be another one along soon…

SCALE AIRCRAFT MODELLING

VOLUME: 37 ISSUE: 12

February 2016
Proudly Celebrating 37 Years!
www.guidelinepublications.co.uk

Published by Guideline Publications & printed by Regal Litho
Unit 3, Enigma Building, Bilton Road,
Denbigh East, Bletchley,Bucks. MK1 1HW
Ph: +44 (0) 1908 274433 Fax: +44 (0) 1908 270614
ISDN: 01908 640154

Distributed to the UK and International news trade by:
Intermedia
http://www.inter-media.co.uk/
via
MarketForce (UK) Ltd.
110 Southwark Street, London SE1 0SU
http://www.marketforce.co.uk/

Chairman: Regis Auckland

Worldwide Advertising: Tom Foxon, tom@regallitho.co.uk

Editor: Gary Hatcher, blisterwhelk@outlook.com

Assistant Editor: Karl Robinson

Associate Editor: Neil Robinson

Newsdesk: Colin 'Flying' Pickett

Book Reviews: Ernie Lee

News & Industry Editor: Tom Foxon, tom@regallitho.co.uk

Design: Lincoln Rodrigues

House Artist: Mark Rolfe, rolfetechart@gmail.com

North American Contact: Larry Weindorf
Post Office Box 21, Annandale,VA 22003
ph: 703-639-7316, larry@larryslegions.com

SAM Subscriptions, SAM Shop & Back Issues:
Unit 3, Enigma Building, Bilton Road,
Denbigh East, Bletchley,Bucks. MK1 1HW
Ph: +44 (0) 1908 274433 Fax: +44 (0) 1908 270614
ISDN: 01908 640154

12 Months' Subscription
UK: £49.50, Europe: £64.00
Rest of the World: £85.00 Air Mail Only,

USA / Canada Subscriptions: $127.00
Larry Weindorf
2 York Street , Gettysburg PA 17325 USA
Ph: 703-639-7316
e-mail: larry@larryslegions.com

Alternatively we can bill you and send an invoice for your 1 year subscription. Payment from overseas should be made by International Money Order or Bankers Draft drawn on the UK branch of the subscriber's own bank. We also accept payment by Visa and Mastercard, Credit Cards or Delta debit cards, with full name, card number including 3-digit security code, issue number, and expiry date.

The Legal Bits:
This Magazine is copyrighted material!
Scale Aircraft Modelling (ISSN 0956-1420) is sold through the news distribution trade subject to the condition that no material written or pictorial is copied from editorial or advertising pages without the written consent of the publishers. Guideline Publications accepts no liability for the contents of advertisements or the conduct of advertisers. Opinions expressed by authors and reviewers are their own and may not reflect those of the publishers. Unsolicited material sent for publication is welcome on the understanding that it may not be returned unless postage is provided.

Next issue

Planned for the Scale Aircraft Modelling
Volume 38 Issue 1: Mar 2016

Chico the Gunfighter

The Legendary F-4E in 1/32

by **Marcel Hohl**

Water Water Everywhere

Building the Albatross – a Seamaster in 1/72

by **Tony Grand**

Aircraft in Profile

Grumman F4F Wildcat

With scale plans and colour artwork by **Mark Rolfe**

Operation Granby

Modelling the Gulf War – 25 Years On

By **Martus Brown**

Gull-Wing Centre Plan

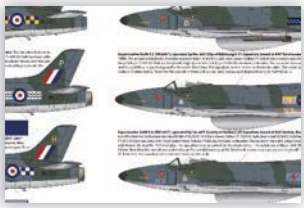
Trumpeter's Be-6 'Madge'

By **Andy McCabe**

Silver Arrow

Eduard's 1/48 Mirage IIIc Weekend Edition

By **Colin 'Flying' Pickett**



Colour Conundrums

Supermarine Swift Part Two

By **Paul Lucas**

All this and more - plus the latest from the Newsdesk, the continuing efforts of the Harrogate Model Club, and the usual Marketplace round up and showcases.

Please note we receive a constant stream of interesting and informative articles, and in the interest of balanced and up to the minute coverage content may change at short notice. The above listing is provisional and may be subject to change.

NEW DECALS

Airscale

AS32MOD 1:32 Cockpit Instrumentation and Multi Function Displays, Ejection Seats and Canopies for both US and European modern 'Glass Cockpit' aircraft £13.95

AS48MOD 1:48 Cockpit Instrumentation and Multi Function Displays, Ejection Seats and Canopies for both US and European modern 'Glass Cockpit' aircraft £10.95

Authentic Decals

AD4820 1:48 Mikoyan MiG-31BM Foxhound (Specially for NEW AMK MiG-31 kit) £13.20

AD7272 1:72 Sukhoi Su-34 Fullback "Syrian Ghost" £8.25

Begemot

BT4840 1:48 Mikoyan MiG-31BM/BSM "Foxhound" This decal specially designed for the Avant Gard Model kit. Decal set consist from 2 big and 1 medium sheets and include 15 versions of various aircrafts and full stencils for aircraft and weapons. £14.50

Berna Decals

BER48118 1:48 Junkers 52 (AAC-1 'Toucan') French Navy & Air Force: 5.S.7 N°32 - Karouba (Tunisia) 1960, DK.2 N°216 - AOF Liaison Unit Dakar (Senegal), N°127 code I - 1947, N°50 code G - GT II/61 'Maine' Le Bourget 1948, N°166 code O & N°414 code EF- GT I/64 'Bearn' Tan Son Nhut (Indochina) 1948 & 1952, N°? code J - GSRA 78 'Tindouf' Colomb-Bechar (Algeria) 1959 (7 schemes) ref. £12.99

BER72098 1:72 Junkers Ju-52 (AAC-1 'Toucan') French Navy & Air Force: 5.S.7 N°32 - Karouba (Tunisia) 1960, DK.2 N°216 - AOF Liaison Unit Dakar (Senegal), N°127 code I - 1947, N°50 code G - GT II/61 'Maine' Le Bourget 1948, N°166 code O & N°414 code EF- GT I/64 'Bearn' Tan Son Nhut (Indochina) 1948 & 1952, N°? code J - GSRA 78 'Tindouf' Colomb-Bechar (Algeria) 1959 (7 schemes) ref. £10.20

Caracal Models

CD32017 1:32 RAF Typhoon FGR4 "Battle of Britain": £11.20

CD48076 1:48 Re-printed! Beech C-45 Expeditor Part 1 UC-45J Expeditor, NAS Miramar 1962; RC-45J Expeditor VC-5 NAS Cubi Point 1969; UC-45J Expeditor NAS Miramar 1962;TC-45J Expeditor NAS Oakland 1960s; TC-45J Expeditor NAS Iwakuni (Japan) 1960s; C-45B Expeditor USAAF 1944; C-45G Expeditor USAF 1961 £11.20

CD48091 1:48 McDonnell F-15A/C Eagles operated by the 199th FS of the Hawaii Air National Guard. £11.20

CD48093 1:48 Lockheed-Martin F-16C/D Block 50/52 Dark Vipers, Have Glass V scheme. 179 FS, Minnesota ANG & 157 FS, South Carolina ANG. £11.20

CD48096 1:48 USAF C-21 (Learjet 35) Randolph, Keesler, Ramstein, Colorado, Connecticut, North Dakota AFBs £11.20

CD72022 1:72 Reprinted! Lockheed EC-121 Warning Star Part 2: EC-121R 67-21498, USAF 553rd Recon Wing (camouflaged "Batcat"), 1970; EC-121D 53-0536, USAF 551st AEW, 1968; WV-2 BuNo 141325, US Navy VW-13, 1962; WV-2 BuNo 131388 "Planner One", US Navy NADU, 1961 £11.20

CD72035 1:72 Douglas C-54/R5D Skymaster - Part 1 US Navy "Blue Angels" R5D-3 Skymaster 1965; USAAF C-54B 44-9002, 320th Troop Carrier Sqn, 1945; USAF C-54G 45-628 (the last Berlin Airlift flight), 1949; £11.20

CD72038 1:72 Beriev Be-12 "Chaika" Russian Navy; Egyptian (United Arab Republic) Air Force; and fire tanker prototypes £11.20

CD72040 1:72 Martin P5M-2 (SP-5B) Marlin VP-45, VP-48, VP-49, VP-31, SP-5B Flotille 27, French Navy £11.20

Kits-World

KW144046 1:144 Avro Lancaster B.Mk VII, NX611, LE-C/H DX-C/F Lincolnshire Aviation Heritage Centre,East Kirby England, 2014; B.Mk.X, KB726 VR-A, 419 (Moose) Sqn, RCAF Canadian Warplane Hertiage Museum, 2014; B.MkI, PA474 KC-A 'BBMF DV385 Thumper III' England 2014. £7.99

KW144047 1:144 Republic P-47D Thunderbolt "Razorback" 42-76275 - "Squirt II" 405th FG. Pilot: Lt R. Parker; 42-8096 - "Miss Mutt" 348th FG.; 'Stalag Luft III' 'Button Nose' 42-26298 LM-A(bar) 56th Fighter Group Lt Albert Knafelz; 'Triss' 42-7937 LM-Q 56th Fighter Group,62nd Fighter Squadron Flown by Lt A.R. Carcione Halesworth February 1944. £7.99

KW144049 1:144 Avro Lancaster B.I/III Johnny Walker 'Still Going Strong' WS-J W4954 9 Sqn Bardney 1944; B.I/III 'Getting Younger Every Day' WS-Y LM220 9 Sqn Bardney 1944 BI SE-X KB837 'Devil' 431 Sqn (Iroquois) 6 Grp Croft, England.1944 £7.99

KW144050 1:144 North-American P-51D Mustang 44-73623 'My Achin, (Ass) Maj. Harry C. Crim, CO 531st FS/21st FG Iwo Jima, 1945; P-51K 44-11622 G4-C "Nooky Booky IV" Maj. Leonard K "Kit" Carson, Ayrshire, IA, 362nd FS; F-6D Shady lady 109th TRS, 67th TRG, Pilot Lt. Slonneger, Crew Chief S/Stg Dalek Serial number:44-14699 (P51-D converted for Tactical-photo reconnaissance). F-6C Oh Johnie 1/144 scale 109th TRS, 67th TRG, Pilot Lt. Childers, Crew Chief Cpl. du Fosse: 43-25081, (P51-C converted for Tactical-photo reconnaissance). £7.99

KW32106 1:32 Nort-American RAF MUSTANG ACES MK.III KH500/HBW of Wg.CDR. Harold. Bird-Wilson, 17 Sqn, Bentwaters, 1945; MK.III FZ120/YT-J of Squadron Leader D.H Westenra, No 65 Sqn Ford and Funtington, April 1944; MKIII FB226/ MT-K of Flg Off C.L.F Talalla, No 122 Sqn, Ford 12 June 1944; MKIII FB344/AZ-Z of Major W.H Christie, No 234 Sqn, Bentwaters, January - February 1945; MKIII KH570/5J-X of Major A Austeen, No 126 Sqn, Bentwaters, 23 February 1945; Mk.IV KH681/GL-Z of Capt H.J.E Clarke, No 5 Squadron SAAF, Fano, Italy, December 1944 - January 1945; MKIV KH860/GA-Z of Sqn Leader J.A Storrar, No 234 Sqn Bentwaters, April 1945; MKIV KM132/FY-S of Sqn Leader P.C.P Farnes, No 611 'West Lancashire' Sqn, Peterhead, 28 July 1945; MKIV KH790/ WHC Lt.Col. W Christie; MKIV KM121/MLD Wg.Cdr. M. Donnet No 350 Sqn, Bentwaters, 1945. £10.20

KW32107 1:32 Boeing B-17E Fling Fortress 41-2407 No.13 'NEMESIS OF AEROEMBOLISM' Boeing Flight Test Laboratory, Muroc Field, 1941-1943; B-17E 41-2399 No.7 ' NEMESIS OF AEROEMBOLISM 'Boeing Flight Test Laboratory, Muroc Field, 1941-1943. £10.20

KW32108 1:32 North-American Mustang P-51 - F-6D Shady lady, 109th TRS, 67th TRG Pilot Lt. Slonneger, Crew Chief S/Stg Dalek Serial number: 44-14699 (P-51D converted for Tactical-photo reconnaissance); Mustang P-51 - F-6C Oh Johnie , 109th TRS, 67th TRG Pilot Lt. Childers, Crew Chief Cpl. du Fosse: 43-25081(P-51C converted for Tactical-photo reconnaissance). £10.20

KW32109 1:32 North-American P-51D 44-73623 'My Achin, (Ass) Maj. Harry C. Crim, CO 5 31st FS/21st FG Iwo Jima, 1945. P-51K 44-11622 G4-C "Nooky Booky IV" Maj. Leonard K "Kit" Carson, Ayrshire, IA, 362nd Fighter Squadron. £10.20

KW48093 1:48 USAAF General Stencilling - Black, White & Red 2" Warning Strips, Hamilton Propeller Logos, Curtis Propeller Logos, Fuel Filler Caps (4 types) Emergency Escape Hatch Panels (2 types). These markings are suitable for a variety of USAAF aircraft including, B-17F Flying Fortress, B-24 Liberator, B-25 Mitchell, B-26 Marauder P-51 Mustang, P-47 Thunderbolt. £7.50

KW48141 1:48 Republic P-47D Thunderbolt "Razorback" 42-76275 - "Squirt II" 405th FG. Pilot: Lt R. Parker P-47D Thunderbolt "Razorback" 42-8096 - "Miss Mutt" 348th FG. Pilot: Lt Col. Robert R. Rowland. £10.20

KW48149 1:48 Consolidated B-24J Liberator 'Dragon and his Tail' 64th Bomb Squadron, 43rd Bomb Group. £15.31

KW48150 1:48 Boeing B-17E 41-2407 No.13 'NEMESIS OF AEROEMBOLISM' Boeing Flight Test Laboratory, Muroc Field, 1941-1943; B-17E 41-2399 No.7 'NEMESIS OF AEROEMBOLISM 'Boeing Flight Test Laboratory, Muroc Field, 1941-1943. £10.20

KW48151 1:48 North-American Mustang P-51 - F-6D Shady lady, 109th TRS, 67th TRG Pilot Lt. Slonneger, Crew Chief S/Stg Dalek Serial number: 44-14699 (P-51D converted for Tactical-photo reconnaissance); Mustang P-51 - F-6C Oh Johnie , 109th TRS, 67th TRG Pilot Lt. Childers, Crew Chief Cpl. du Fosse: 43-25081(P-51C converted for Tactical-photo reconnaissance). £10.20

NEW KITS

Airfix Aircraft kits (injection)

AX04056 1:72 Westland Sea King HC.4 NEW TOOL £14.99

AX25001A 1:24 de Havilland Mosquito FB Mk.VI £139.99

Arma Hobby Aircraft kits (injection)

AH70001 1:72 PZL TS-11 "Iskra" bis DF - deluxe set Set contents parts to build two detailed 1/72 scale kits: Huge decal sheet with 6 markings options and stencils; Two interior photoetched parts frets with instrument dials printed on transparent film; Two exterior photoetched parts frets with airbrakes and other details; Four resin ejection seats; Two sets of resin main wheels £37.99

Big Planes Kits Aircraft kits (injection)

BPK14403 1:144 Pilatus Porter PC-6 & Au-23 (2 sets in the box), set 1 £12.99

BPK14404 1:144 Pilatus Porter PC-6 & Au-23 (2 sets in the box), set 2 £12.99

Brengun Aircraft kits (injection)

BRP72018 1:72 Zlin Z-50 "golden age" £9.99

Cyber-Hobby Aircraft kits (injection)

CH5105 1:72 de Havilland Sea Vixen FAW.2 £14.99

Eduard kits Aircraft kits (injection)

EDK1165 1:48 Douglas SBD-5 Dauntless Ex-Accurate Miniatures plastic, decals by Cartograf, 5 decal options, photo-etch, mask, resin parts: £30.60

EDK70101 1:72 Avia B-534 III. Série Profipack. £13.99

EDK8078 1:48 Messerschmit Bf 108B Taifun £19.50

EDK8472 1:48 Bell P-400 Air A Cuttie Eduard plastic, NO PE, NO mask, NO resin included, £13.99

F-rsin Plastic Aircraft kits (injection)

FRP4068 1:144 Caravelle 12 Sterling £21.99

FRP4069 1:144 Caravelle 12 Air Inter 70's £21.99

FRP4070 1:144 Caravelle 12 Air Inter 80's £21.99

FRP4071 1:144 Caravelle 12 Air Inter 90's £21.99

FRP4072 1:144 Caravelle 12 Catair £21.99

FRP4073 1:144 Caravelle 10B Sterling £21.99

FRP4074 1:144 Caravelle 10B Finnair 60's £21.99

FRP4075 1:144 Caravelle 10B Finnair 70's £21.99

FRP4076 1:144 Caravelle 10B Syrianair £21.99

FRP4077 1:144 Caravelle 10B Air Charter £21.99

Gallery Models (MRC) Aircraft kits (injection)

GM64105 1:48 Sikorsky VH-34D 'Marine One' US Marines HMX-1 Presidential Flight £29.99

GM64106 1:48 Sikorsky UH-34D Seahorse US Navy Operation Deep Freeze, Antarctica £29.99

HobbyBoss Aircraft kits (injection)

HB80379 1:48 Messerschmitt Me 262B-1a/U1 £16.99

HB80381 1:48 Vought F4U-1 Corsair Early £29.99

HB81721 1:48 Focke-Wulf Fw 190D-13 £13.99

HB81732 1:48 Northrop P-61C Black Widow £36.99

HB81745 1:48 SAAB J-29F Tunnan Flying Barrel £23.99

HB81749 1:48 Messerschmitt BF 109F-4 £14.99

Lukgraph Aircraft kits (resin)

LUK3204 1:32 Curtiss 0-1C Falcon (special black edition) £109.99

Miniwings Aircraft kits (resin)

MINI078 1:144 Dassault Ouragan with French and Indian decals. £17.40

Mach 2 Aircraft kits (injection)

MACHGP064 1:72 Armstrong-Whitworth Argosy Decals RAF £45.99

MACHGP065 1:72 Armstrong-Whitworth Argosy Decals for Royal Air Force Transport Command £45.99

MACHGP066 1:72 Armstrong-Whitworth Argosy Decals BEA £45.99

MACHGP067 1:72 Armstrong-Whitworth Argosy Decals ELAN £45.99

Modelsvit Aircraft kits (injection)

MVIT7222 1:72 Tupolev Tu-22KD "Shilo" (Blinder B) medium bomber. Also contains a Kh-22M (AS-4 Kitchen) missile and it's transport carriage. £49.99

MPM Aircraft kits (injection)

MPM72556 1:72 Re-released! Douglas A-20G Havoc Russian Bomber Version. £23.99

OzMods Aircraft kits (injection)

OZKIT7202 1:72 Pilatus PC-9 with decals for RAF/BAe Support Aircraft and RAAF FAC LIMITED STOCK. £24.99

OZKIT7203 1:72 Pilatus PC-9 with decals for US Army Trials aircraft and RAAF trainer LIMITED STOCK. £24.99

Revell Aircraft kits (injection)

RV3962 1:72 Heinkel He 70F-2 (ex ICM) £5.99

RV3963 1:72 Polikarpov I-153 Chaika (ex ICM) £5.99

RS Models Aircraft kits (injection)

RSMI92172 1:72 DFS 230 decals for 3 Luftwaffe aircraft (gliders) £19.60

RSMI92187 1:72 DFS 230 'Unternehemen Rosselsprung' decals for 3 Luftwaffe aircraft (gliders) £19.60

RVHP Models Aircraft kits (resin)

RVH72065 1:72 Embraer ERJ-135LR (Belgian AF) (Special

Order only) £74.99

Special Hobby Aircraft kits (injection)
SH48093 1:48 Re-released! Heinkel He 178V-2 £11.99
SH72325 1:72 Arado Ar-96A £11.99
SH72331 1:72 CAC CA-3/5 Wirraway "First Blood over Rabaul" £13.99

Sword Aircraft kits (injection)
SW48008 1:48 BAC/EE Lightning T Mk.4 2 decal versions: XM898/X 56 Sqn Firebirds 1963; XM995/T 92 Sqn Gütersloh, Germany,1976 £34.99
SW48009 1:48 BAC/EE Lightning T Mk.5 3 decal versions: XS452 226 OCU,Lakenheath,1976; XS458/DY, LTF RAF,1988; XV328/DU, LTF RAF Alconbury,1987 £34.99

Trumpeter Aircraft kits (injection)
TU02898 1:48 Sukhoi SU-11 Fishpot £33.99

Unicraft Aircraft kits (resin)
UNI72119 1:72 Shorts PD.13 British 1950 two-seat, carrier-based attack bomber. £53.99
UNI72120 1:72 BMW Strahlbomber I German jet bomber £62.99
UNI72121 1:72 Ushakov LPL Russian WWII flying submarine project £43.40

Valom Aircraft kits (injection)
VAL14414 1:144 Fokker E.III Eindecker (2in1) kit includes two identical sprues with parts, 2 x resin engines and two frets with p/e parts. £9.99
VAL72100 1:72 Heinkel He 119V4 with 1 decal option for Luftwaffe aircraft D-AUTE. The kit includes two sprues with main parts and details, one sprue with clear parts, a fret with p/e parts and a film with instrument panel. £23.99

Zvezda Aircraft kits (injection)
ZVE7012 1:144 Boeing 777 £19.99

NEW ACCESSORIES

Aerobonus (by Aires) Diorama accessories (resin)
QAB320078 1:32 Warehouse two wheeled hand truck £10.40
QAB320079 1:32 US 55 gallon barrels (empty) £9.95
QAB480141 1:48 USAF Missile maintenance stands with V-shelf assemblies £5.50
QAB720012 1:72 USAF F-2A spill trailer £13.95
Figures (resin)
QAB320082 1:32 U.S. Marines Pilot WWII - Pacific theatre £8.55
QAB480138 1:48 Free French Fighter Pilot WWII Normandie-Niemen (1942-1945) £6.55
QAB480139 1:48 German and Austro-Hungarian Aircraft crew WWI £13.95
QAB480140 1:48 U.S.A.F. Fighter Pilot WWII - 8th Army (European Battlefields) £6.55
QAB720019 1:72 German and Austro-Hungarian Aircraft Mechanic WWI. (1914-1918) - part 4 £4.50
QAB720020 1:72 German Luftwaffe Pilot WWII for Messerschmitt Bf 109 late version £4.50

Aires Aircraft detailing sets (resin)
AIRE4665 1:48 Curtiss P-40M/P-40N Warhawk control surfaces (Hasegawa) £5.99
AIRE4666 1:48 Grumman F8F-1/F8F-1B/F8F-2 Bearcat control surfaces (Hobby Boss) £5.99
AIRE4667 1:48 de Havilland Vampire FB.5 control surfaces (Trumpeter) £5.99
AIRE7339 1:72 Focke-Wulf Fw 200 Condor control surfaces (Trumpeter) £6.99
AIRE7337 1:72 Avia B-534 seats (Eduard) £2.99
AIRE7338 1:72 Focke-Wulf Fw 190A-8 seats (Eduard) £2.99

Armory Aircraft detailing sets (resin)
RACA4810C 1:48 OFAB-100-120 100kg high-explosive bombs + MZBD-U4T bomb racks (8 bombs + 2 racks) Sukhoi Su-27, Su-25K, MiG-21 £10.99
RMA7216 1:72 Sukhoi Su-24MR Fencer pitot (Trumpeter) £4.80

Attack Squadron Aircraft engines and propellers (resin)
ASQ72078 1:72 PZL TS-11 'Iskra' Engine set with etched parts (Arma Hobby) £6.99

Barracuda Studios Aircraft detailing sets (resin)
BCR48195 1:48 Supermarine Spitfire Mk.VIII Snapshot Cockpit Upgrade (Eduard kits) £12.80
BCR48197 1:48 Supermarine Spitfire Mk.XVI Snapshot Cockpit Upgrade (Eduard) £12.80
BCR72275 1:72 Avro Shackleton MR.2 exhausts (Airfix) £6.50
BCR48261 1:48 Grumman AF-2S Guardian/AF-2W Guardian Mainwheels (Special Hobby kits) £6.50
BCR48270 1:48 RAF Mid-Late WWII Fighter Pilots. £9.60
BCR48279 1:48 Grumman Tracker Early Mainwheels (Kinetic kits) £6.50
BCR72274 1:72 Avro Shackleton MR.2, AEW.2 Wheel Set (Airfix and Revell kits) £6.50
BCR24281 1:24 de Havilland Mosquito Late Main wheels (Airfix kits) £12.80

Brengun Aircraft canopies (vacform)
BRL144121 1:144 Lavochkin La-5 vac canopy x 2 (Kovozavody Prostejov) £4.40
BRL72101 1:72 Zlin Z-50 vac canopy (Brengun) £4.80
Aircraft detailing sets (etched)
BRL48069 1:48 DFS SG-38 etched detail set (Special Hobby) £6.99
BRL72099 1:72 Zlin Z-50 etched details (Brengun) £6.99
BRL72100 1:72 Let S-328 etchings (MPM) £6.99

Brengun Aircraft paint masks (self adhesive)
BRL72098 1:72 Zlin Z-50 painting masks (Brengun) £4.80

CMK/Czech Master Kits Aircraft detailing sets (resin)
CMK4324 1:48 Supermarine Spitfire Mk.Vb Engine set (Airfix kits) The set offers detailed Merlin Mk.45 installation and comes with engine bearers, exhausts, bulkhead and engine cowlings. A PE-fret is also contained in the set. £16.80
CMK7300 1:72 Curtiss P-40B/P-40C - Control surfaces (Airfix kits) £12.60
CMK7330 1:72 Letov S-328 - Control surfaces set (Special Hobby) £6.30
CMQ48232 1:48 WWI German Wicker Seats with seat belts 1/48 (4 pcs) A set of WWI aircraft seats. There are two styles of the seats, all come with the seat belts. £5.60
CMQ72235 1:72 Martin-Baker Mk.9 Ejection Seat with Harness (Airfix BAe Harrier Gr.3) £3.40
CMQ72236 1:72 Folland Gnat F.1 Ejection Seat with Harness (Special Hobby) £3.40
CMQ72237 1:72 Folland Gnat F.1/Ajeet Mk.1 - Martin-Baker Mk.GF4 Ejection Seat with Harness (Special Hobby) £3.40
CMF48291 1:48 Bomb Disposal Technician. £7.80
CMF48292 1:48 Commonwealth WWII Fighter Pilot in a Spitfire Seat for 1/48 Eduard Supermarine Spitfire Mk.VIII/Mk.IX/Mk.XVI (Eduard) £7.80
CMF72289 1:72 Japanese Army AF Bomber Crew Members, WWII (3 fig.) A set of three aircrew members for any Japanese WW2 bomber model. The airmen, already in their life vests are having a debate before the mission. One of them has a parachute over his shoulder, another is carrying a map case and the last is studying the flight plan. £8.20
CMF72290 1:72 Japanese Army AF Mechanics, WWII (3 fig.) 1/72 A set of three Japanese aircraft mechanics from the WWII period. One of the figures is sculpted carrying a tool box. £8.20

Eduard 1:32 Aircraft detailing sets (etched)
ED32381 1:32 Bell P-39Q/N exterior (Kitty Hawk Model) £19.50
ED32382 1:32 Bell P-39Q/N landing gear (Kitty Hawk Model) £19.50
ED32383 1:32 Bell P-39Q/N landing flaps (Kitty Hawk Model) £22.60
ED32852 1:32 Bell P-39Q/N seatbelts (Kitty Hawk Model) £5.60
ED32853 1:32 Bell P-39Q/N interior (Kitty Hawk Model) £19.50
ED32854 1:32 Bell P-39Q/N seatbelts FABRIC (Kitty Hawk Model) £8.40
ED33153 1:32 Bell P-39Q/N interior (Kitty Hawk Model) £12.80
ED32856 1:35 Airspeed A.S.51 Horsa Glider Mk.I cargo seatbelts (Bronco Models) £16.70
ED33154 1:35 Airspeed A.S.51 Horsa Glider Mk.I (Bronco Models) £10.99
ED48869 1:48 Douglas Dauntless upgrade set (Eduard) £13.99
ED48870 1:48 Douglas Dauntless landing flaps (Eduard) £20.60
ED48871 1:48 Petlyakov Pe-2 exterior (Zvezda) £20.60
ED48872 1:48 Bell P-39/400 landing flaps (Eduard) £16.70
ED49091 1:48 Petlyakov Pe-2 seatbelts SUPERFABRIC (Zvezda) £8.40
ED49092 1:48 Petlyakov Pe-2 seatbelts FABRIC (Zvezda) £9.50
ED49747 1:48 Petlyakov Pe-2 interior (Zvezda) £15.30
ED49748 1:48 SPAD XIII (Revell) £10.99
EDFE747 1:48 Petlyakov Pe-2 interior (Zvezda) £12.80
EDFE749 1:48 Bell P-400 for the Weekend Series (Eduard) £10.99
ED72616 1:72 Avro Shackleton MR.2 landing flaps (Airfix) £19.50
ED73541 1:72 Mikoyan MiG-29A Fulcrum Izdeliye 9-12 (Trumpeter) £13.99
ED73542 1:72 Avro Shackleton MR.2 (Airfix) £13.99
ED73543 1:72 Junkers Ju 87B-1 'Stuka' (Airfix) £10.99
ED73544 1:72 Avro Shackleton MR.2 fuselage interior (Airfix) £12.80
EDSS538 1:72 Grumman F4F-4 Wildcat (Airfix) £5.60
EDSS541 1:72 Mikoyan MiG-29A Fulcrum Izdeliye 9-12 interior (Trumpeter) £8.40
EDSS542 1:72 Avro Shackleton MR.2 cockpit interior (Airfix) £10.99
EDSS543 1:72 Junkers Ju 87B-1 'Stuka' interior (Airfix) £8.40
ED144008 1:144 Avia B-534 (Eduard) £5.60
Aircraft paint masks (self adhesive)
EDJX186 1:32 Bell P-39Q/N (Kitty Hawk Model) £7.20
EDJX187 1:35 Airspeed A.S.51 Horsa Glider Mk.I (Bronco Models) £8.40
EDEX488 1:48 Petlyakov Pe-2 (Zvezda) £8.40
EDCX433 1:72 Mikoyan MiG-29A Fulcrum Izdeliye 9-12 1/72 (Trumpeter) £6.20
EDCX434 1:72 Avro Shackleton MR.2 1/72 (Airfix) £9.50
EDCX435 1:72 Lavochkin La-5FN 1/72 (Kovozavody Prostejov) £5.60
EDCX436 1:72 Junkers Ju 87B-1 'Stuka' (Airfix) £6.20

Eduard Brassin Aircraft detailing sets (resin)
ED648186 1:48 AIM-4D £7.20
ED648207 1:48 IRIS-T £7.20
ED672059 1:72 M117 bombs w/airbrake £7.20
ED672087 1:72 Mk.82 bombs £7.20
SIN64821 1:48 Supermarine SPITFIRE Mk.XVI ADVANCED 1/48 £41.75

Arma Hobby AH70001
1:72 PZL TS-11 "Iskra" bis
£37.99

Big Planes Kits BPK14403
11:144 Pilatus Porter PC-6 & Au-23 (2 sets in the box), set 1 **£12.99**

Brengun BRP72018
1:72 Zlin Z-50 " golden age"
£9.99

Gallery Models (MRC) GM64105
1:48 Sikorsky VH-34D 'Marine One
£29.99

Lukgraph LUK3204
1:32 Curtiss 0-1C Falcon
(special black edition)
£109.99

MACH2 MACHGP065
1:72 Armstrong-Whitworth Argosy
£45.99

OzMods OZKIT7203
11:72 Pilatus PC-9 with decals for US Army Trials aircraft and RAAF trainer **£24.99**

RS Models RSMI92172
RSMI92172 1:72 DFS 230
£19.60

PLEASE NOTE CHEQUES AND POSTAL ORDERS ARE NO LONGER ACCEPTED

Established since 1890 - selling plastic kits since 1955 - your guarantee of service

HANNANTS

TRADE ENQUIRIES WELCOME

TELEPHONE NUMBER 0845 130 72 48
LOCAL RATE FROM UK PHONES ONLY (NOT MOBILES)

H.G.Hannant Ltd, Harbour Road, Oulton Broad,
Lowestoft, Suffolk, NR32 3LZ, England
Tel: 01502 517444 or 0845 130 72 48 (all calls will be charged at local rate)
Fax: 01502 500521
http://www.hannants.co.uk
Enquiries to: sales@hannants.co.uk
London address: Unit 2 Hurricane Trading Estate,
Grahame Park Way, Colindale NW9 5QW Telephone: 020 8205 6697

VISA MasterCard Maestro

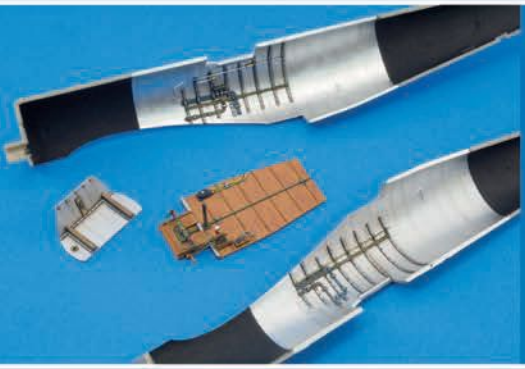
Please visit our website for our up to date postage rates.

www.hannants.co.uk

Waterbased Metallic Colors

METAL COLOR

A range of 19 waterbased metallic colors in 32 ml bottles (flip-top/dropper closure) especially designed for airbrushing. In the development of this new and innovative range, the latest generation of aluminium pigments has been used in a specifically designed formula to produce colors of exceptional resistance and adherence to plastics and metal.
The product can be applied directly on models without the need for a primer, although in the case of fuselages and components for airplane models it is recommended to first apply a glossy Black Primer to bring forth the unique and special quality of the aluminum finish.



Follow us on:
/vallejocolors

www.acrylicosvallejo.com

vallejo